1850

REPORT

ON

THE CONDITION AND PROGRESS

OF THE

QUEEN'S UNIVERSITY IN IRELAND,

FROM

JUNE 19, 1852, TO SEPTEMBER 1, 1853.

BY

THE RIGHT HON. MAZIERE BRADY,

VICE-CHANCELLOR OF THE UNIVERSITY, AND LORD HIGH CHANCELLOR OF IRELAND.

Presented to both Houses of Parliament by Command of Her Majesty.

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1853.

REPORT.

TO HIS EXCELLENCY THE EARL OF ST. GERMANS, LORD LIEUTENANT GENERAL, AND GENERAL GOVERNOR OF IRELAND.

Dublin, 1st September, 1853.

MAY IT PLEASE YOUR EXCELLENCY,

In the absence of the Right Hon. the Earl of Clarendon, K.G., G.C.B., Chancellor of the Queen's University in Ireland, it becomes my duty, as Vice-Chancellor, in obedience to the directions contained in her Majesty's Charter, to submit to your Excellency the report of its condition and progress since the first day of July, 1852, the date of the former report, which was the first made after the University had been constituted.

The Senate having caused advertisements to be published, announcing their intention to appoint Examiners in the several branches of science, literature, and the useful arts, in which Degrees, Diplomas, and Honors were to be conferred in the year 1852, received numerous applications for the Examinerships; and proceeded, on the 17th of July in that year, to make those appointments, and selected the twenty eminent persons whose names are stated in the accompanying list. Appendix I.

The Charter of the University requires that the Examiners should be appointed annually. The appointments, therefore, were made for one year only; but the Senate has considered the Examiners of each year as not precluded from re-election; and, accordingly, of the twenty Examiners so appointed in July, 1852, eleven had been appointed, and acted as Examiners in the year 1851.

The several Examiners were directed to communicate with the Professors in their respective departments in the Queen's Colleges, with a view to their informing themselves of the extent and nature of the studies pursued in each College by the Students about to present themselves for examination.

Certain irregularities in the courses of study, as prescribed by the ordinances, having arisen in the case of a few Students, which the Senate considered to be attributable to misdirection on the part of the Councils of the Queen's Colleges of Cork and Galway, it was considered necessary that a special ordinance should be framed for the relief of the Students so circumstanced, but with a clear understanding that no departure from the rules should be, in future, permitted. Appendix II.

The Examinations commenced on the 21st of September, and the Degree and Appendix III. Diploma Examinations occupied six days. The Honor Examinations com- Appendix IV. menced on the first of October, and occupied eleven days. The Examinations were conducted principally by printed papers, copies of which are annexed.

On the 13th of October, the Senate, having considered the Reports of the Appendices V. VI. Examiners, declared the several Candidates mentioned in the accompanying lists to have passed for the respective Degrees, Diplomas, and Honors therein specified.

Six Candidates were rejected.

On the 14th of October, a public meeting was held in St. Patrick's Hall, Dublin Castle, which was attended by his Excellency the Earl of Eglinton and Winton, Lord Lieutenant, and several official personages; and at this meeting the Degrees, Diplomas, and Honors were conferred on the successful Candidates mentioned in Appendices V. VI., with the exception of one gentleman, who was prevented by illness from attending to receive the Degree of M.D.

Appendix VII. I subjoin a report of the observations which I made on this occasion, as well as a copy of the Lord Lieutenant's address at the close of the proceedings; and I take leave to refer to those observations, as embodying statements regarding the answering and merits of the Students and the general character of the examinations, which were, I am satisfied, fully justified by the facts as regarded both the Examiners and the Candidates who came before them.

Appendix VIII. During the course of the year, questions having arisen as to the import of certain directions for the courses of study of medical students, &c., I annex copies of the resolutions of the Senate thereupon, together with a list of the various Schools of Medicine and Hospitals which have complied with the regulations of the Senate during the year.

Appendix IX. It having been found that an omission had been made in the Ordinance of the 30th of June, 1850, in the course of study for the Degree of LL.B., the Supplemental Ordinance, a copy of which is annexed, was prepared and sanctioned.

Appendix X. An estimate for the sums likely to be required for the present year was prepared, and has since been granted by Parliament.

Appendix XI. Ordinances for the Examination for the Degree of A.M., and for the General Examination for the year 1853 were prepared, and have received your Excellency's sanction.

On the 5th of April, 1853, Robert Andrews, Esq., Q.C., LL.D., took his seat as a member of the Senate, having been appointed by Royal Warrant, dated 25th February, 1853.

Appendix XII. The fee of one pound on the Degree of LL.B. has been fixed by the Senate, and has received the sanction of the Lords Commissioners of her Majesty's Treasury. The cash account for the year ending 20th of June, 1853, shows a balance of £630 14*s.* 1*d.* in favour of the University.

Appendix XIII. For the purposes of the Examinations for Degrees, Diplomas, and Honors, to be held in the year 1853, the Senate proceeded, on the 16th of July last, to the annual appointment of Examiners in the several departments in which such Examinations are to be conducted. The same course of public advertisement was pursued as on former occasions; and the Senate appointed the several persons whose names, with their respective literary and scientific positions, are given in the annexed table. Of the twenty Examiners so selected your Excellency will perceive that nine had been among those appointed in 1852.

Appendix XIV. A statement of the various meetings of the Senate is annexed. At some of those meetings particular subjects, relating chiefly to the establishments of the Queen's Colleges of Belfast, Cork, and Galway, were brought under the notice of the Senate by direction of her Majesty's Government, and occupied much of their attention, but to which it does not appear to me to be necessary further to allude in this Report.

In the Appendix hereto I have the honour to transmit, for your Excellency's information, copies of the several documents above referred to, and of the papers by which the Examinations of 1852 were conducted.

I have the honour to be
Your Excellency's
Obedient and faithful Servant,

MAZIERE BRADY,
Vice-Chancellor.

APPENDIX.

I.—EXAMINERS ELECTED JULY 17, 1852.

GREEK.—Charles MacDouall, A.M., Professor of Greek, Queen's College, Belfast.
LATIN.—Bunnell Lewis, A.M., Professor of Latin, Queen's College, Cork.
ENGLISH LITERATURE.—George L. Craik, A.M., Professor of History and English Literature, Queen's College, Belfast.
LOGIC AND METAPHYSICS.—The Rev. William Fitzgerald. D.D., Vicar of St. Anne's.
MATHEMATICS.—John Mulcahy, LL.D., Professor, Queen's College. Galway.
NATURAL PHILOSOPHY.—John Stevelly, LL.D., Professor. Queen's College, Belfast.
CHEMISTRY.—James Apjohn, M.D., M.R.I.A., Professor, T.C.D.
ANATOMY AND PHYSIOLOGY.—Hugh Carlile. M.D., M.R.I.A., Professor, Queen's College, Belfast.
ZOOLOGY AND BOTANY.—George J. Allman, M.D., M.R.I.A., Professor, T.C.D.
MODERN LANGUAGES.—The Rev J. G. Abeltshauser, LL.D., M.R.I.A., Professor, T.C.D.
MINERALOGY, GEOLOGY, AND PHYSICAL GEOGRAPHY.—James Nicol, F.R.S.E., F.G.S., Professor, Queen's College, Cork.
JURISPRUDENCE AND POLITICAL ECONOMY.—D. Caulfield Heron, A.B., Professor, Queen's College, Galway.
LAW.—James A. Lawson, LL.D.
CIVIL ENGINEERING.—W. B. Blood. A.B., C.E., Professor, Queen's College, Galway.
AGRICULTURE.—Thomas Skilling, Professor, Queen's College, Galway.
CELTIC LANGUAGES.—John O'Donovan, LL.D., M.R.I.A., Professor, Queen's College, Belfast.
MEDICINE.—Cathcart Lees, M.D.
SURGERY.—John Hamilton, F.R.C.S., M.R.I.A.
MATERIA MEDICA, PHARMACY, AND MEDICAL JURISPRUDENCE.—Alexander Fleming, M.D., Professor, Queen's College, Cork.
MIDWIFERY, AND DISEASES OF WOMEN AND CHILDREN.—Thomas M'Keever, M.D., Hon. F. King and Queen's College of Physicians; Ex-Assistant Physician, Lying-in-Hospital; formerly Lecturer, T.C.D.

II.—THE QUEEN'S UNIVERSITY IN IRELAND, September 18, 1852.

At a meeting of the Senate held this day, it appeared, on an examination of the Certificates of Students presenting themselves as Candidates for Degrees from this University, that, owing to a departure from the order of the Course of Study prescribed by the Ordinances, Mr. M'Mahon, a Student in Arts and Law, for two years in the Queen's College, Galway, was unable to attend the Course of Botany in that College, as it had been transferred (by the alteration alluded to) from the second year to the third; and as on the expiration of the second year he passed *ad eundem* to Belfast College, in which latter College (as directed by the Ordinances) Botany is the subject of the second year's study, he thus, without any fault of his own, failed so far to comply with the Ordinances of the Senate. It also appeared that Messrs. Bagley, Mongan, O'Halloran, O'Keeffe, Keily, Jones, Page, and Morgan, Students in the Queen's College, Cork, had neglected to attend the Course of Physical Geography, being informed by the Council of that College, that such attendance was not compulsory, although prescribed by the Ordinance before referred to. [A minute of the Council to that effect has been certified to the Senate.] Under these circumstances, it is felt that it would be a great hardship on the gentlemen concerned to put them back for another year, the more particularly, as by the recent Examination Ordinance they are not necessarily required to answer either in Botany or Physical Geography, but may select other subjects, which they have accordingly done. The Senate, therefore, is of opinion, that notwithstanding these omissions, the above-mentioned gentlemen may be admitted to the Degree Examination; and that the Courses of Study which they appear actually to have pursued, should be deemed sufficient for that purpose in their respective cases: it being to be understood that proper measures be taken, to prevent the Councils of the Colleges again altering the course of education as prescribed by the Ordinances, and, to require their entire conformity thereto for the future.

By order,
ROBERT BALL,
Secretary.

EGLINTON AND WINTON,

I, Archibald William Earl of Eglinton and Winton, Lord Lieutenant-General and General Governor of Ireland, hereby [in accordance with the opinion of the Senate of the Queen's University in Ireland] approve of the Courses of Study pursued by the Students referred to in the foregoing minute, being deemed as sufficient for their examination for Degrees.

By His Excellency's Command,
JOHN WYNNE.

Dublin Castle, September 21, 1852.

III.—ORDER OF DEGREE AND DIPLOMA EXAMINATION, 1852.

DATE AND HOURS OF EXAMINATION.	ARTS.	MEDICINE.	AGRICULTURE.	ELEMENTARY LAW.
Tuesday, 21st Sept., 9 o'clock, A.M.,	Latin,	Theory and Practice of Surgery,	Theory of Agriculture, including Plans for Farm Accounts.	
2 o'clock, P.M.,	Greek,	Theory and Practice of Medicine,	Practice of Agriculture, including Projects for Farm Improvements.	
Wednesday, 22nd Sept., 9 o'clock, A.M.,	Logic and Metaphysics,	Materia Medica and Pharmacy,	History and Diseases of Farm Animals	
2 o'clock, P.M.,	Political Economy and Jurisprudence,	Medical Jurisprudence,	Surveying and Mapping, Examination of Maps and Field Books.	
Thursday, 23rd Sept., 9 o'clock, A.M.,	Mathematics,	Midwifery,	Arithmetic, with Vulgar and Decimal Fractions and Mensuration.	
2 o'clock, P.M.,	Mathematics,	Diseases of Women and Children.		
Friday, 24th Sept., 9 o'clock, A.M.,	Natural Philosophy,	Natural Philosophy,	Principles of Natural Philosophy, without Mathematical Proof	Jurisprudence.
2 o'clock, P.M.,	Chemistry,	Chemistry,	Chemistry,	Law of Property and Principles of Conveyancing
Saturday, 25th Sept., 9 o'clock, A.M.,	Zoology and Botany,	Botany,	Principles of Zoology and Botany,	Common & Criminal Law.
2 o'clock, P.M.,	Modern Languages,	Modern Languages.		
Monday, 27th Sept., 9 o'clock, A.M.,	Physical Geography,	Anatomy,	Mineralogy and Geology,	Civil Law
2 o'clock, P.M.,	English Philology and Criticism,	Physiology and Comparative Anatomy,		Equity & Bankruptcy.

HONOR EXAMINATIONS.

October, 1852.

DATE AND HOURS OF EXAMINATION.	ARTS.	MEDICINE.	AGRICULTURE.	ELEMENTARY LAW
Friday, 1st October, 9 o'clock, A.M.,	English Literature,		Surveying and Mapping.	
2 o'clock, P.M.,	Elements of Geology and Physical Geography,		Mineralogy and Geology.	
Saturday, 2nd October, 9 o'clock, A.M.,	Chemistry, Jurisprudence, and Political Economy,	Chemistry,	Chemistry.	
2 o'clock, P.M.,	Chemistry, Jurisprudence, and Political Economy.		Theory of Agriculture.	
Monday, 4th October, 9 o'clock, A.M.,	Natural Philosophy, Logic, and Metaphysics,	Natural Philosophy,	Natural Philosophy.	
2 o'clock, P.M.,	Natural Philosophy, Logic, Metaphysics, & Celtic Languages,	* Theory and Practice of Surgery,	Practice of Agriculture, and History & Diseases of Farm Animals.	
Tuesday, 5th October, 9 o'clock, A.M.,	Zoology and Botany,	Botany,	Zoology and Botany.	
2 o'clock, P.M.,	Mathematics,	Materia Medica and Medical Jurisprudence,	Arithmetic	
Wednesday, 6th Oct., 9 o'clock, A.M.,	Mathematics,	Modern Languages.		
2 o'clock, P.M.,	Mathematics,	* Theory and Practice of Medicine.		
Thursday, 7th October, 9 o'clock, A.M.,	Mathematics,	Physiology & Anatomy.		
2 o'clock, P.M.,	Mathematics,	Midwifery, and Diseases of Women & Children.		
Friday, 8th October, 9 o'clock, A.M.,	Classical Languages.			
2 o'clock, P.M.,	Classical Languages			
Saturday, 9th October, 9 o'clock, A.M.,	Classical Languages.			
2 o'clock, P.M.,	Classical Languages.			
Monday, 11th October, 9 o'clock, A.M.,	Classical Languages,			Equity & Bankruptcy
2 o'clock, P.M.,	Classical Languages,			Law of Property and Principles of Conveyancing.
Tuesday, 12th October, 9 o'clock, A.M.,	Modern Languages,			Common & Criminal Law.
2 o'clock, P.M.,				Civil Law.
Wednesday, 13th Oct., 9 o'clock, A.M., 2 o'clock, P.M.,				Jurisprudence.

* From 3 to 5 o'clock, P.M.

IV.—EXAMINATION FOR THE DEGREE OF A.B.

21*st September*, 1852, 9 *o'clock, a.m.*

LATIN.—*Examiner, Bunnell Lewis, A.M.*

Translate any two of the following extracts :—

TERENCE.—ADELPHI.

Nam quod isti dicunt malevoli, homines nobilis
Eum adjutare adsidueque una scribere,
Quod illi maledictum vehemens esse existumant,
Eam laudem hic ducit maxumam ; cum illis placet,
Qui vobis universis et populo placent :
Quorum opera in bello, in otio, in negotio,
Suo quisque tempore usus 'st sine superbia.
Dehinc ne exspectetis argumentum fabulae :
Senes, qui primi venient, hi partim aperient ;
In agendo partim ostendent, facite, aequanimitas
Poetae ad scribendum augeat industriam.

HORACE.—ODES, BOOK I.

Nullam, Vare, sacra vite prius severis arborem
Circa mite solum Tiburis et mœnia Catili.
Siccis omnia nam dura Deus proposuit neque
Mordaces aliter diffugiunt sollicitudines.
Quis post vina gravem militiam aut pauperiem crepat ?
Quis non te potius, Bacche pater, teque, decens Venus ?
At, ne quis modici transiliat munera Libori,
Centaurea monet cum Lapithis rixa super mero
Debellata, monet Sithoniis non levis Evius,
Quum fas atque nefas exiguo fine libidinum
Discernunt avidi.

HORACE.—SATIRES, BOOK I.

Ambubaiarum collegia, pharmacopolæ,
Mendici, mimæ, balatrones, hoc genus omne
Mæstum ac sollicitum est cantoris morte Tigelli :
Quippe benignus erat. Contra hic, ne prodigus esse
Dicatur metuens, inopi dare nolit amico,
Frigus quo duramque famem propellere possit.
Hunc si perconteris, avi cur atque parentis
Præclaram ingrata stringat malus ingluvie rem,
Omnia conductis coëmens obsonia nummis :
Sordidus atque animi quod parvi nolit haberi,
Respondet ; laudatur ab his, culpatur ab illis.

HORACE.—EPISTLES, BOOK II.

Sedulitas autem, stulte quem diligit, urget,
Præcipue quum se numeris commendat et arte :
Discit enim citius meminitque libentius illud,
Quod quis deridet, quam quod probat et veneratur.
Nil moror officium, quod me gravat, ac neque ficto
In pejus vultu proponi cereus usquam,
Nec prave factis decorari versibus opto,
Ne rubeam pingui donatus munere et una
Cum scriptore meo capsa porrectus aperta,
Deferar in vicum vendentem thus et odores
Et piper et quidquid chartis amicitur ineptis.

VIRGIL.—ÆNEID, BOOK I.

Postquam prima quies epulis, mensæque remotæ,
Crateras magnos statuunt, et vina coronant.
Fit strepitus tectis, vocemque per ampla voluntant
Atria ; dependent lychni laquearibus aureis.
Incensi, et noctem flammis funalia vincunt.
Hic regina gravem gemmis auroque poposcit
Implevitque mero pateram, quam Belus, et omnes
A Belo soliti ; tum facta silentia tectis :
" Jupiter, hospitibus nam te dare jura loquuntur,
Hunc lætum Tyriisque diem Trojaque profectis
Esse velis, nostrosque hujus meminisse minores."

Juvenal.—Sat. XIV.

Hospite venturo, cessabit nemo tuorum.
Verre pavimentum, nitidas ostende columnas,
Arida cum tota descendat aranea tela;
Hic leve argentum, vasa aspera tergeat alter;
Vox domini furit instantis virgamque tenentis.
Ergo miser trepidas, ne stercore fœda canino
Atria displiceant oculis venientis amici,
Ne perfusa luto sit porticus: et tamen uno
Semodio scobis hæc emundat servulus unus.
Illud non agitas, ut sanctam filius omni
Adspiciat sine labe domum vitioque carentem?

Sallust.—Catiline.

Sed confecto prœlio, tum vero cerneres, quanta audacia quantaque vis animi fuisset in exercitu Catilinæ. Nam fere, quem quisque vivus pugnando locum ceperat, eum amissa anima corpore tegebat. Pauci autem, quos medios cohors prætoria disjecerat, paullo diversius, sed omnes tamen adversis vulneribus conciderant. Catilina vero longe a suis inter hostium cadavera repertus est, paullulum etiam spirans ferociamque animi, quam habuerat vivus, in vultu retinens. Postremo ex omni copia neque in prœlio neque in fuga quisquam civis ingenuus captus est: ita cuncti suæ hostiumque vitæ juxta pepercerant.

Cæsar.—De Bello Gallico, Book V.

Hominum est infinita multitudo, creberrimaque ædificia, fere Gallicis consimilia: pecorum magnus numerus. Utuntur aut ære, aut taleis ferreis, ad certum pondus examinatis, pro nummo. Nascitur ibi plumbum album in mediterraneis regionibus, in maritimis ferrum; sed ejus exigua est copia: ære utuntur importato. Materia cujusque generis, ut in Gallia, est, præter fagum atque abietem. Leporem et gallinam et anserem gustare, fas non putant; hæc tamen alunt animi voluptatisque causa. Loca sunt temperatiora, quam in Gallia, remissioribus frigoribus.

Cicero.—Pro Archia.

Quæ quum ita sint, quid est, quod de ejus civitate dubitetis, præsertim quum aliis quoque in civitatibus fuerit adscriptus? Etenim quum mediocribus multis, et aut nulla, aut humili aliqua arte præditis, gratuito civitatem in Græcia homines impertiebantur, Rheginos credo, aut Locrenses, aut Neapolitanos, aut Tarentinos, quod scenicis artificibus largiri solebant, id huic, summa ingenii prædito gloria, noluisse. Quid? quum ceteri, non modo post civitatem datam, sed etiam post legem Papiam, aliquo modo in eorum municipiorum tabulas irrepserint: hic, qui ne utitur quidem illis, in quibus est scriptus, quod semper se Heracleensem esse voluit, rejicietur?

Cicero.—Orat. II. in Catilinam.

Quintum genus est parricidarum, sicariorum, denique omnium facinorosorum: quos ego a Catilina non revoco; nam neque divelli ab eo possunt: et pereant sane in latrocinio, quoniam sunt ita multi, ut eos capere carcer non possit. Postremum autem genus est, non solum numero, verum etiam genere ipso atque vita: quod proprium est Catilinæ, de ejus delectu, immo vero de complexu ejus ac sinu; quos pexo capillo, nitidos, aut imberbes, aut bene barbatos videtis: manicatis et talaribus tunicis; velis amictos, non togis: quorum omnis industria vitæ, et vigilandi labor in antelucanis cœnis expromitur.

Cicero.—De Senectute.

Me quidem non fructus modo, sed etiam ipsius terræ vis ac natura delectat: quæ quum gremio mollito ac subacto semen sparsum excepit, primum id occæcatum cohibet; ex quo *occatio*, quæ hoc efficit, nominata est: deinde tepefactum vapore et compressu suo diffundit, et elicit herbescentem ex eo viriditatem: quæ nixa fibris stirpium, sensim adolescit, culmoque erecta geniculato, vaginis jam quasi pubescens includitur; e quibus quum emersit, fundit frugem spici, ordine structam, et contra avium minorum morsus munitur vallo aristarum.

Livy.—Book XXI.

Galli occursant in ripam cum variis ululatibus cantuque moris sui, quatientes scuta super capita vibrantesque dextris tela, quamquam ex adverso terrebat tanta vis navium cum ingenti sono fluminis et clamore vario nautarum, militum, et qui nitebantur perrumpere impetum fluminis, et qui ex altera ripa trajicientes suos hortabantur. Jam satis paventes adverso tumultu terribilior ab tergo adortus clamor, castris ab Hannone captis. Mox et ipse aderat, ancepsque terror circumstabat, et e navibus tanta vi armatorum in terram evadente, et ab tergo improvisa premente acie.

TACITUS.—HISTORIES, BOOK I.

Alium crederes senatum, alium populum. Ruere cuncti in castra, anteire proximos, certare cum præcurrentibus, increpare Galbam, laudare militum judicium, exosculari Othonis manum; quantoque magis falsa erant quæ fiebant, tanto plura facere. Nec aspernabatur singulos Otho, avidum et minacem militum animum voce vultuque temperans. Marium Celsum consulem designatum et Galbæ usque in extremas res amicum fidumque *ad* supplicium expostulabant, industriæ ejus innocentiæque quasi malis artibus infensi. Cædis et prædarum initium et optimo cuique perniciem quæri apparebat.

TACITUS.—AGRICOLA.

Non vidit Agricola obsessam curiam et clausum armis senatum et eadem strage tot consularium cædes, tot nobilissimarum feminarum exsilia et fugas. Una adhuc victoria Carus Metius censebatur, et intra Albanam arcem sententia Messalini strepebat, et Massa Bæbius jam tum reus erat. Mox nostræ duxere Helvidium in carcerem manus; nos Maurici Rusticique visus, nos innocenti sanguine Senecio perfudit. Nero tamen subtraxit oculos, jussitque scelera, non spectavit: præcipua sub Domitiano miseriarum pars erat videre et aspici, cum suspiria nostra subscriberentur, cum denotandis tot hominum palloribus sufficeret sævus ille vultus et rubor, quo se contra pudorem muniebat.

1. Write short explanatory notes on the passages which you have translated.
2. Analyse the words examen, sodalis, manifestus, perscrutari, quorsum.
3. Give the principal parts of parco, lavo, misceo, audeo, algeo, conniveo, reor, fruor, percello, lino, emico. Decline domus.
4. Write the following passage, with the quantity of each syllable marked:—

Si quis vestrûm, judices, aut eorum qui adsunt, forte miratur me, qui tot annos in causis judiciisque publicis ita sim versatus, ut defenderim multos, læserim neminem, subito nunc mutata voluntate, ad accusandum descenderim; is, si mei consilii causam rationemque cognoverit, una et id quod facio probabit, et in hac causa profecto neminem præponendum esse mihi actorem putabit.

5. Explain the Alcaic and Sapphic metres.
6. Give an account of the Punic wars, with the dates of the most remarkable events, and brief critical notices of the ancient authorities for this period.
7. Describe the functions of the Prætors, Ædiles, and Quæstors, respectively.
8. Draw a map of Italy, and mark the ancient and modern names of the principal cities.
9. Translate into Latin prose—

Fortune, who is powerful in all human affairs, but especially in operations of war, appears to be no longer on our side.

It may be that what you say you have heard, you have never heard at all.

True virtue, however much it may be darkened by the envy of men, will yet one day shine forth.

21st September, 1852, 2 *o'clock, p.m.*

GREEK.—*Examiner, Charles Mac Douall, A.M.*

1.—ILIAD. I., 131-143.

Μὴ δ' οὕτως, ἀγαθός περ ἐών, θεοείκελ' Ἀχιλλεῦ,
κλέπτε νόῳ, ἐπεὶ οὐ παρελεύσεαι οὐδέ με πείσεις.
ἦ ἐθέλεις, ὄφρ' αὐτὸς ἔχῃς γέρας, αὐτὰρ ἔμ' αὔτως
ἧσθαι δευόμενον, κέλεαι δέ με τήνδ' ἀποδοῦναι;
ἀλλ', εἰ μὲν δώσουσι γέρας μεγάθυμοι Ἀχαιοί,
ἄρσαντες κατὰ θυμόν, ὅπως ἀντάξιον ἔσται—
εἰ δέ κε μὴ δώωσιν, ἐγὼ δέ κεν αὐτὸς ἕλωμαι
ἢ τεὸν ἢ Αἴαντος ἰὼν γέρας, ἢ Ὀδυσῆος
ἄξω ἑλών· ὁ δέ κεν κεχολώσεται, ὅν κεν ἵκωμαι.
ἀλλ' ἤτοι μὲν ταῦτα μεταφρασόμεσθα καὶ αὖτις·
νῦν δ' ἄγε, νῆα μέλαιναν ἐρύσσομεν εἰς ἅλα δῖαν,
ἐς δ' ἐρέτας ἐπιτηδὲς ἀγείρομεν, ἐς δ' ἑκατόμβην
θείομεν, ἂν δ' αὐτὴν Χρυσηΐδα καλλιπάρῃον
βήσομεν.

2.—ILIAD. VIII., 17-27.

Γνώσετ' ἔπειθ', ὅσον εἰμὶ θεῶν κάρτιστος ἁπάντων.
εἰ δ', ἄγε, πειρήσασθε, θεοί, ἵνα εἴδετε πάντες,
σειρὴν χρυσείην ἐξ οὐρανόθεν κρεμάσαντες,
πάντες δ' ἐξάπτεσθε θεοὶ πᾶσαί τε θέαιναι·
ἀλλ' οὐκ ἂν ἐρύσαιτ' ἐξ οὐρανόθεν πεδίονδε
Ζῆν', ὕπατον μήστωρ', οὐδ' εἰ μάλα πολλὰ κάμοιτε.
ἀλλ', ὅτε δὴ καὶ ἐγὼ πρόφρων ἐθέλοιμι ἐρύσσαι,
αὐτῇ κεν γαίῃ ἐρύσαιμ' αὐτῇ τε θαλάσσῃ.
σειρὴν μέν κεν ἔπειτα περὶ ῥίον Οὐλύμποιο
δησαίμην, τὰ δέ κ' αὖτε μετήορα πάντα γένοιτο.
τόσσον ἐγὼ περί τ' εἰμὶ θεῶν περί τ' εἴμ' ἀνθρώπων.

3.—ILIAD. XXII., 490-504.

Ημαρ δ' ὀρφανικὸν παναφήλικα παῖδα τίθησιν·
πάντα δ' ὑπεμνήμυκε, δεδάκρυνται δὲ παρειαί.
δευόμενος δέ τ' ἄνεισι πάϊς ἐς πατρὸς ἑταίρους,
ἄλλον μὲν χλαίνης ἐρύων, ἄλλον δὲ χιτῶνος·
τῶν δ' ἐλεησάντων κοτύλην τις τυτθὸν ἐπέσχεν,
χείλεα μέν τ' ἐδίην', ὑπερῴην δ' οὐκ ἐδίηνεν.
τὸν δὲ καὶ ἀμφιθαλὴς ἐκ δαιτύος ἐστυφέλιξεν,
χερσὶν πεπληγὼς καὶ ὀνειδείοισιν ἐνίσσων·
ἔρρ' οὗτος· οὐ σός γε πατὴρ μεταδαίνυται ἡμῖν.
δακρυόεις δέ τ' ἄνεισι πάϊς ἐς μητέρα χήρην,
Ἀστυάναξ, ὃς πρὶν μὲν ἑοῦ ἐπὶ γούνασι πατρὸς

μυελὸν οἶον ἔδεσκε καὶ οἰῶν πίονα δημόν·
αὐτὰρ, ὅθ' ὕπνος ἕλοι, παύσαιτό τε νηπιαχεύων,
εὕδεσκ' ἐν λέκτροισιν, ἐν ἀγκαλίδεσσι τιθήνης,
εὐνῇ ἔνι μαλακῇ, θαλέων ἐμπλησάμενος κῆρ.

4.—HERODOTUS, VII., 146.

Οἱ δὲ, ἀπικόμενοί τε ἐς Σάρδις, καὶ καταμαθόντες τὴν βασιλέος στρατιήν, ὡς ἐπάϊστοι ἐγένοντο, βασανισθέντες ὑπὸ τῶν στρατηγῶν τοῦ πεζοῦ στρατοῦ, ἀπήγοντο ὡς ἀπολεύμενοι. καὶ τοῖσι μὲν κατεκέκριτο θάνατος· Ξέρξης δὲ, ὡς ἐπύθετο ταῦτα, μεμφθεὶς τῶν στρατηγῶν τὴν γνώμην, πέμπει τῶν τινας δορυφόρων, ἐντειλάμενος, ἢν καταλάβωσι τοὺς κατασκόπους ζῶντας, ἄγειν παρ' ἑωυτόν. ὡς δὲ ἔτι περιεόντας αὐτοὺς κατέλαβον, καὶ ἦγον ἐς ὄψιν τὴν βασιλέος, τὸ ἐνθεῦτεν, πυθόμενος ἐπ' οἷσι ἦλθον, ἐκέλευέ σφεας τοὺς δορυφόρους περιάγοντας ἐπιδείκνυσθαι πάντα τε τὸν πεζὸν στρατὸν καὶ τὴν ἵππον, ἐπεὰν δὲ ταῦτα θηεύμενοι ἔωσι πλήρεες, ἀποπέμπειν ἐς τὴν ἂν αὐτοὶ ἐθέλωσι χώρην ἀσινέας.

5.—ÆSCHYLUS—PROMETHEUS VINCTUS, 459–471.

Καὶ μὴν ἀριθμὸν ἔξοχον σοφισμάτων
ἐξεῦρον αὐτοῖς, γραμμάτων τε συνθέσεις,
μνήμην θ' ἁπάντων μουσομήτορ' ἐργάτιν.
κἄζευξα πρῶτος ἐν ζυγοῖσι κνώδαλα
ζεύγλαισι δουλεύοντα, σώμασίν θ' ὅπως
θνητοῖς μεγίστων διάδοχοι μοχθημάτων
γένοινθ', ὑφ' ἅρματ' ἤγαγον φιληνίους
ἵππους, ἄγαλμα τῆς ὑπερπλούτου χλιδῆς.
θαλασσόπλαγκτα δ' οὔτις ἄλλος ἀντ' ἐμοῦ
λινόπτερ' εὗρε ναυτίλων ὀχήματα.
τοιαῦτα μηχανήματ' ἐξευρὼν τάλας
βροτοῖσιν αὐτὸς οὐκ ἔχω σόφισμ' ὅτῳ
τῆς νῦν παρούσης πημονῆς ἀπαλλαγῶ.

6.—SOPHOCLES—ŒDIPUS TYRANNUS, 584–595.

Σκέψαι δὲ τοῦτο πρῶτον, εἴ τιν' ἂν δοκεῖς
ἄρχειν ἑλέσθαι ξὺν φόβοισι μᾶλλον ἢ
ἄτρεστον εὕδοντ', εἰ τά γ' αὔθ' ἕξει κράτη.
ἐγὼ μὲν οὖν οὔτ' αὐτὸς ἱμείρων ἔφυν
τύραννος εἶναι μᾶλλον ἢ τύραννα δρᾶν,
οὔτ' ἄλλος ὅστις σωφρονεῖν ἐπίσταται.
νῦν μὲν γὰρ ἐκ σοῦ πάντ' ἄνευ φόβου φέρω·
εἰ δ' αὐτὸς ἦρχον, πολλὰ κἂν ἄκων ἔδρων.
πῶς δῆτ' ἐμοὶ τυραννὶς ἡδίων ἔχειν
ἀρχῆς ἀλύπου καὶ δυναστείας ἔφυ;
οὔπω τοσοῦτον ἠπατημένος κυρῶ
ὥστ' ἄλλα χρῄζειν ἢ τὰ σὺν κέρδει καλά.

7.—SOPHOCLES—ANTIGONE, 473–483.

'Αλλ' ἴσθι τοι τὰ σκλήρ' ἄγαν φρονήματα
πίπτειν μάλιστα· καὶ τὸν ἐγκρατέστατον
σίδηρον ὀπτὸν ἐκ πυρὸς περισκελῆ
θραυσθέντα καὶ ῥαγέντα πλεῖστ' ἂν εἰσίδοις.
σμικρῷ χαλινῷ δ' οἶδα τοὺς θυμουμένους
ἵππους καταρτυθέντας. οὐ γὰρ ἐκπέλει
φρονεῖν μέγ' ὅστις δοῦλός ἐστι τῶν πέλας.
αὕτη δ' ὑβρίζειν μὲν τότ' ἐξηπίστατο,
νόμους ὑπερβαίνουσα τοὺς προκειμένους·
ὕβρις δ', ἐπεὶ δέδρακεν, ἥδε δευτέρα,
τούτοις ἐπαυχεῖν καὶ δεδρακυῖαν γελᾶν.

8.—SOPHOCLES—ŒDIPUS COLONEUS, 270–281.

Καίτοι πῶς ἐγὼ κακὸς φύσιν,
ὅστις παθὼν μὲν ἀντέδρων, ὥστ', εἰ φρονῶν
ἔπρασσον, οὐδ' ἂν ὧδ' ἐγιγνόμην κακός;
νῦν δ' οὐδὲν εἰδὼς ἱκόμην ἵν' ἱκόμην,
ὑφ' ὧν δ' ἔπασχον εἰδότων ἀπωλλύμην.
ἀνθ' ὧν ἱκνοῦμαι πρὸς θεῶν ὑμᾶς, ξένοι,
ὥσπερ με κἀνεστήσασθ', ὧδε σώσατε.
καὶ μή, θεοὺς τιμῶντες, εἶτα τοὺς θεοὺς
μοίραις ποιεῖσθε μηδαμῶς· ἡγεῖσθε δὲ
βλέπειν μὲν αὐτοὺς πρὸς τὸν εὐσεβῆ βροτῶν,
βλέπειν δὲ πρὸς τοὺς δυσσεβεῖς· φυγὴν δέ του
μήπω γενέσθαι φωτὸς ἀνοσίου.

9.—EURIPIDES—HECUBA, 905–916, 923–927.

Σὺ μέν, ὦ πατρὶς Ἰλιάς,
τῶν ἀπορθήτων πόλις οὐκέτι λέξει·
τοῖον Ἑλλανων νέφος ἀμφί σε κρύπτει
δορὶ δὴ δορὶ πέρσαν.
ἀπὸ δὲ στεφάναν κέκαρσαι
πύργων, κατὰ δ' αἰθάλου
κηλῖδ' οἰκτροτάταν κέχρωσαι.
τάλαιν', οὐκέτι σ' ἐμβατεύσω.
μεσονύκτιος ὠλλύμαν,
ἦμος ἐκ δείπνων ὕπνος ἡδὺς ἐπ' ὄσσοις
κίδναται, ...
ἐγὼ δὲ πλόκαμον ἀναδέτοις
μίτραισιν ἐρρυθμιζόμαν
χρυσέων ἐνόπτρων
λεύσσουσ' ἀτέρμονας εἰς αὐγάς,
ἐπιδέμνιος ὡς πέσοιμ' ἐς εὐνάν.

10.—EURIPIDES—MEDEA, 410–430.

Ἄνω ποταμῶν ἱερῶν χωροῦσι παγαί,
καὶ δίκα καὶ πάντα πάλιν στρέφεται.
ἀνδράσι μὲν δόλιαι βουλαί, θεῶν δ'
οὐκέτι πίστις ἄραρε.
τὰν δ' ἐμὰν εὔκλειαν ἔχειν βιοτὰν στρέψουσι φᾶμαι.
ἔρχεται τιμὰ γυναικείῳ γένει·
οὐκέτι δυσκέλαδος φάμα γυναῖκας ἕξει.
μοῦσαι δὲ παλαιγενέων λήξουσ' ἀοιδᾶν
τὰν ἐμὰν ὑμνεῦσαι ἀπιστοσύναν.
οὐ γὰρ ἐν ἁμετέρᾳ γνώμᾳ λύρας

ὤπασε θέσπιν ἀοιδὰν
Φοῖβος, ἀγήτωρ μελέων· ἐπεὶ ἀντάχησ' ἂν ὕμνον
ἀρσένων γέννᾳ· μακρὸς δ' αἰὼν ἔχει
πολλὰ μὲν ἁμετέραν ἀνδρῶν τε μοῖραν εἰπεῖν.

11.—THUCYDIDES, I., 32, 33.

Δίκαιον, ὦ Ἀθηναῖοι, τοὺς μήτε εὐεργεσίας μεγάλης μήτε ξυμμαχίας προοφειλομένης ἥκοντας παρὰ τοὺς πέλας, ἐπικουρίας ὥσπερ καὶ ἡμεῖς νῦν, δεησομένους ἀναδιδάξαι πρῶτον, μάλιστα μὲν ὡς καὶ ξύμφορα δέονται, εἰ δὲ μή, ὅτι γε οὐκ ἐπιζήμια· ἔπειτα δέ, ὡς καὶ τὴν χάριν βέβαιον ἕξουσιν· εἰ δὲ τούτων μηδὲν σαφὲς καταστήσουσι, μὴ ὀργίζεσθαι ἢν ἀτυχῶσι. Κερκυραῖοι δέ, μετὰ τῆς ξυμμαχίας τῆς αἰτήσεως καὶ ταῦτα πιστεύοντες ἐχυρὰ ὑμῖν παρέξεσθαι, ἀπέστειλαν ἡμᾶς. τετύχηκε δὲ τὸ αὐτὸ ἐπιτήδευμα πρός τε ὑμᾶς ἐς τὴν χρείαν ἡμῖν ἄλογον καὶ ἐς τὰ ἡμέτερα αὐτῶν ἐν τῷ παρόντι ἀξύμφορον................γενήσεται δὲ ὑμῖν πειθομένοις καλὴ ἡ ξυντυχία κατὰ πολλὰ τῆς ἡμετέρας χρείας.

12.—XENOPHON—ANABASIS I., 3, §§ 5, 6.

Εἰ μὲν δὴ δίκαια ποιήσω οὐκ οἶδα· αἱρήσομαι δ' οὖν ὑμᾶς καὶ σὺν ὑμῖν ὅ τι ἂν δέῃ πείσομαι. καὶ οὔποτ' ἐρεῖ οὐδεὶς ὡς ἐγώ, Ἕλληνας ἀγαγὼν εἰς τοὺς βαρβάρους, προδοὺς τοὺς Ἕλληνας τὴν τῶν βαρβάρων φιλίαν εἱλόμην· ἀλλά, ἐπεὶ ὑμεῖς ἐμοὶ οὐκ ἐθέλετε πείθεσθαι οὐδ' ἕπεσθαι, ἐγὼ σὺν ὑμῖν ἕψομαι καὶ ὅ τι ἂν δέῃ πείσομαι. νομίζω γὰρ ὑμᾶς ἐμοὶ εἶναι καὶ πατρίδα καὶ φίλους καὶ συμμάχους, καὶ σὺν ὑμῖν μὲν ἂν εἶναι τίμιος ὅπου ἂν ὦ, ὑμῶν δὲ ἐρημωθεὶς οὐκ ἂν ἱκανὸς εἶναι οἶμαι οὔτ' ἂν φίλον ὠφελῆσαι οὔτ' ἂν ἐχθρὸν ἀλέξασθαι. ὡς ἐμοῦ οὖν ἰόντος ὅπῃ ἂν καὶ ὑμεῖς, οὕτω τὴν γνώμην ἔχετε.

13.—XENOPHON—ANABASIS III., 1, §§ 38–40.

Καὶ νῦν πρῶτον μὲν οἴομαι ἂν ὑμᾶς μέγα ὀνῆσαι τὸ στράτευμα, εἰ ἐπιμεληθείητε ὅπως ἀντὶ τῶν ἀπολωλότων ὡς τάχιστα στρατηγοὶ καὶ λοχαγοὶ κατασταθῶσιν. ἄνευ γὰρ ἀρχόντων οὐδὲν ἂν οὔτε καλὸν οὔτε ἀγαθὸν γένοιτο, ὡς μὲν συνελόντι εἰπεῖν, οὐδαμοῦ, ἐν δὲ δὴ τοῖς πολεμικοῖς παντάπασιν· ἡ μὲν γὰρ εὐταξία σώζειν δοκεῖ, ἡ δὲ ἀταξία πολλοὺς ἤδη ἀπολώλεκεν. ἐπειδὰν δὲ καταστήσησθε τοὺς ἄρχοντας ὅσους δεῖ, ἢν καὶ τοὺς ἄλλους στρατιώτας συλλέγητε καὶ παραθαρρύνητε, οἶμαι ὑμᾶς πάνυ ἂν ἐν καιρῷ ποιῆσαι. νῦν μὲν γὰρ ἴσως καὶ ὑμεῖς αἰσθάνεσθε ὡς ἀθύμως μὲν ἦλθον ἐπὶ τὰ ὅπλα, ἀθύμως δὲ πρὸς τὰς φυλακάς· ὥστε, οὕτω γε ἐχόντων, οὐκ οἶδα ὅ τι ἄν τις χρήσαιτο αὐτοῖς, εἴτε νυκτὸς δέοι τι εἴτε καὶ ἡμέρας.

14.—PLATO—APOLOGIA SOCRATIS, c. 27.

Ἴσως οὖν ὑμῖν καὶ ταυτὶ λέγων παραπλησίως δοκῶ λέγειν ὥσπερ περὶ τοῦ οἴκτου καὶ τῆς ἀντιβολήσεως, ἀπαυθαδιζόμενος· τὸ δὲ οὐκ ἔστιν, ὦ ἄνδρες Ἀθηναῖοι, τοιοῦτον, ἀλλὰ τοιόνδε μᾶλλον. πέπεισμαι ἐγὼ ἑκὼν εἶναι μηδένα ἀδικεῖν ἀνθρώπων, ἀλλὰ ὑμᾶς τοῦτο οὐ πείθω· ὀλίγον γὰρ χρόνον ἀλλήλοις διειλέγμεθα· ἐπεί, ὡς ἐγᾦμαι, εἰ ἦν ὑμῖν νόμος, ὥσπερ καὶ ἄλλοις ἀνθρώποις, περὶ θανάτου μὴ μίαν ἡμέραν μόνον κρίνειν, ἀλλὰ πολλάς, ἐπείσθητε ἄν· νῦν δ' οὐ ῥάδιον ἐν χρόνῳ ὀλίγῳ μεγάλας διαβολὰς ἀπολύεσθαι. πεπεισμένος δὴ ἐγὼ μηδένα ἀδικεῖν πολλοῦ δέω ἐμαυτόν γε ἀδικήσειν καὶ κατ' ἐμαυτοῦ ἐρεῖν αὐτός, ὡς ἄξιός εἰμί του κακοῦ καὶ τιμήσεσθαι τοιούτου τινὸς ἐμαυτῷ.

15.—PLATO'S CRITO, c. 5.

Ἔτι δέ, ὦ Σώκρατες, οὐδὲ δίκαιόν μοι δοκεῖς ἐπιχειρεῖν πρᾶγμα, σαυτὸν προδοῦναι, ἐξὸν σωθῆναι καὶ τοιαῦτα σπεύδεις περὶ σεαυτὸν γενέσθαι, ἅπερ ἂν καὶ οἱ ἐχθροί σου σπεύσαιέν τε καὶ ἔσπευσαν σὲ διαφθεῖραι βουλόμενοι. πρὸς δὲ τούτοις καὶ τοὺς υἱεῖς τοὺς σαυτοῦ ἔμοιγε δοκεῖς προδιδόναι, οὕς σοι ἐξὸν καὶ ἐκθρέψαι καὶ ἐκπαιδεῦσαι οἰχήσει καταλιπών· καὶ τὸ σὸν μέρος, ὅ τι ἂν τύχωσι, τοῦτο πράξουσι· τεύξονται δέ, ὡς τὸ εἰκός, τοιούτων, οἷάπερ εἴωθε γίγνεσθαι ἐν ταῖς ὀρφανίαις περὶ τοὺς ὀρφανούς. ἢ γὰρ οὐ χρὴν ποιεῖσθαι παῖδας, ἢ ξυνδιαταλαιπωρεῖν καὶ τρέφοντα καὶ παιδεύοντα. σὺ δέ μοι δοκεῖς τὰ ῥᾳθυμότατα αἱρεῖσθαι.

16.—DEMOSTHENES DE CORONA, c. 1.

Πρῶτον μέν, ὦ ἄνδρες Ἀθηναῖοι, τοῖς θεοῖς εὔχομαι πᾶσι καὶ πάσαις, ὅσην εὔνοιαν ἔχων ἐγὼ διατελῶ τῇ τε πόλει καὶ πᾶσιν ὑμῖν, τοσαύτην ὑπάρξαι μοι παρ' ὑμῶν εἰς τουτονὶ τὸν ἀγῶνα· ἔπειθ', ὅπερ ἐστὶ μάλισθ' ὑπὲρ ὑμῶν καὶ τῆς ὑμετέρας εὐσεβείας τε καὶ δόξης, τοῦτο παραστῆσαι τοὺς θεοὺς ὑμῖν, μὴ τὸν ἀντίδικον σύμβουλον ποιήσασθαι περὶ τοῦ πῶς ἀκούειν ὑμᾶς ἐμοῦ δεῖ (σχέτλιον γὰρ ἂν εἴη τοῦτό γε), ἀλλὰ τοὺς νόμους καὶ τὸν ὅρκον, ἐν ᾧ πρὸς ἅπασι τοῖς ἄλλοις δικαίοις καὶ τοῦτο γέγραπται, τὸ ὁμοίως ἀμφοῖν ἀκροάσασθαι. τοῦτο δ' ἐστὶν οὐ μόνον τὸ μὴ προκατεγνωκέναι μηδέν, οὐδὲ τὸ τὴν εὔνοιαν ἴσην ἀποδοῦναι, ἀλλὰ καὶ τὸ τῇ τάξει καὶ τῇ ἀπολογίᾳ, ὡς βεβούληται καὶ προῄρηται τῶν ἀγωνιζομένων ἕκαστος, οὕτως ἐᾶσαι χρήσασθαι.

17.—LUCIAN DIAL. MORT. 11.

ΧΑΡΩΝ. Ἀκούσατε ὡς ἔχει ὑμῖν τὰ πράγματα· μικρὸν μὲν ὑμῖν, ὡς ὁρᾶτε, τὸ σκαφίδιον καὶ ὑπόσαθρόν ἐστι, καὶ διαρρεῖ τὰ πολλά, καί, ἢν τραπῇ ἐπὶ θάτερα, οἰχήσεται περιτραπέν· ὑμεῖς δὲ τοσοῦτοι ἅμα ἥκετε, πολλὰ ἐπιφερόμενοι ἕκαστος. ἢν οὖν μετὰ τούτων ἐμβῆτε, δέδια μὴ ὕστερον μετανοήσετε, καὶ μάλιστα ὁπόσοι νεῖν οὐκ ἐπίστασθε. ΝΕΚ. Πῶς οὖν ποιήσαντες εὐπλοήσομεν; ΧΑΡ. Ἐγὼ ὑμῖν φράσω· γυμνοὺς ἐπιβαίνειν χρή, τὰ περιττὰ ταῦτα πάντα ἐπὶ τῆς ἠϊόνος καταλιπόντας· μόλις γὰρ ἂν καὶ οὕτω δέξαιτο ὑμᾶς τὸ πορθμεῖον. σοὶ δέ, ὦ Ἑρμῆ, μελήσει, τὸ ἀπὸ τούτου, μηδένα παραδέχεσθαι αὐτῶν, ὃς ἂν μὴ ψιλὸς ᾖ, καὶ τὰ ἔπιπλα, ὥσπερ ἔφην, ἀποβαλών. παρὰ δὲ τὴν ἀποβάθραν ἑστὼς διαγίνωσκε αὐτούς, καὶ ἀναλάμβανε, γυμνοὺς ἐπιβαίνειν ἀναγκάζων.

Translate any two of the passages: then

1.—Describe the relation which the Greek Language bears to the Latin; noticing also, if you choose, those other Languages which are generally recognised as *primary* members of the Indo-European Family.

2.—(*a*) Mention the principal Hellenic Dialects, with their geographical distribution;—(*b*) briefly characterize the successive phases of Attic, and explain the formation of the "Common Dialect;"—(*c*) state in which Dialect—and, when Attic, in which of its stages—each of the above extracts is composed.

3.—(*a*) State the fundamental laws of Homeric Verse. (*b*) Mark, along the first four lines of the first Homeric extract, the feet of which each is composed, the chief cæsural places, and the quantity of every syllable.

4.—(*a*) State the fundamental laws of Iambic Trimeter observed in Tragedy. (*b*) Mark, along the first five lines of the extract from the *Antigone*, the feet of which each is composed, the chief cæsural places, and the quantity of every syllable.

5.—(*a*) Describe the usage of the Article in Homeric Greek; and (*b*) give general rules for its insertion or omission in Attic Prose.

6.—Write down the Greek Prepositions, subjoining to each the cases which it governs, and the different shades of meaning presented by each in its different constructions.

7.—Give the principal rules for the Augment and Reduplication of Verbs.

8.—Give the correct Attic forms, in all the persons and numbers, for 'I know,' 'thou knowest,' &c., &c., beginning with οἶδα; also for 'I knew,' 'thou knewest,' &c., &c., beginning with ᾔδη or ᾔδειν.

9.—Give the correct Attic expressions for 'he says,' 'he will say,' 'he has said,' 'he said,' 'he sees,' 'he will see,' 'he has seen,' 'he saw'; and for the corresponding parts of our verbs 'hear,' 'taste,' 'touch,' 'smell,' 'be,' 'come,' 'go,' 'run,' 'lead,' 'live,' 'die,' 'have,' 'take,' 'seem,' 'learn,' 'know,' 'remember,' 'forget.'

22nd September, 1852, 9 *o'clock. a.m.*

I.—LOGIC.—*Examiner, Rev. William Fitzgerald, A.M.*

1. The rule "de omni" may be so stated as to be immediately applicable to the Sorites.
2. State and prove the special rules in the several figures.
3. Are the following legitimate Syllogisms:—

(I.) "No evil should be allowed that good may come of it:
"All punishment is an evil:
"Therefore, no punishment should be allowed that good may come of it."
(II.) "That man is independent of the caprices of fortune, who places his chief happiness in moral and intellectual excellence:
"A true philosopher is independent of the caprices of fortune:
"Therefore, a true philosopher is one who places his chief happiness in moral and intellectual excellence."
(III.) "What happens every day is not improbable:
"Some things, against which the chances are many thousands to one, happen every day:
"Therefore, some things against which the chances are many thousands to one, are not improbable."
If not, state their defects.

4. Does every legitimate Syllogism involve a Petitio Principii?
5. Enumerate and describe the different *Idola* mentioned by Bacon.
6. Three principal kinds of false philosophy are specified by Bacon; state and illustrate them by examples.
7. What ambiguity is there in the word "Induction?"
8. How may an inductive argument be exhibited in its syllogistic form?
9. What logical parts of a Proposition are the *emphatic* parts in reading?

22nd September, 1852, 9 *o'clock, a.m.*

II.—METAPHYSICS.—*Examiner, Rev. William Fitzgerald, A.M.*

1. Give a general account of the plan and argument of Locke's Essay on the Human Understanding.
2. What is Locke's definition of the term "Idea," as used by himself?
3. What does Locke mean by simple and complex—adequate and inadequate—true and false ideas?
4. What power does Locke allow to the mind over its ideas; and to what does he compare that power?
5. What is Locke's definition of knowledge?
6. What fundamental error did Reid suppose was involved in Locke's system?
7. What is the distinction between primary and secondary qualities?
8. What was Leibnitz's doctrine of the "Harmonia præstabilita?"
9. State the chief differences between the systems of Berkeley and Malebranche?
10. What is Kant's view of the nature of space and time?
11. Does reality (according to Kant) admit of degrees?

22nd September, 1852, 2 *o'clock, p.m.*

POLITICAL ECONOMY.—*Examiner, Professor Heron.*

1. Define Political Economy.
2. How does Political Economy differ from Legislation?
3. The confounding Political Economy with the Sciences and Arts to which it is subservient, has prevented its improvement in two ways.
4. What are the three constituents of Wealth?
5. The things of which the utility is imperfectly transferable may be divided into two great classes.
6. What are the chief sources of the influence which Limitation in Supply has on Value?
7. How is the term *value* used by Mr. Senior?
8. Define the terms *demand* and *supply*.
9. What are the intrinsic and the extrinsic causes of the value of a commodity?
10. Mr. Senior states four elementary propositions of the science of Political Economy.
11. Define Production.
12. What are the three instruments of Production?
13. Define Capital and Labour.
14. Adam Smith has stated three advantages derived from the Division of Labour. He has omitted the most important.
15. Upon what does the superior productiveness of modern, as compared with ancient labour, chiefly depend?
16. Mr. Senior states a principal difference between the efficiency of agricultural and of manufacturing industry.
17. The Laws by which Exchanges are regulated may be divided into two great classes.

18. The whole Produce of a country is divided into three classes.
19. Trace the different effects of Taxation upon manufactured and raw produce.
20. Define Rent.
21. The amount of Rent depends on two causes.
22. What did the French Economists conceive to be the only source of wealth?
23. The terms high and low wages have been used in three different senses.
24. Monopolies may be divided into four kinds.

22nd September, 1852, 2 *o'clock, p.m.*

JURISPRUDENCE.—*Examiner, Professor Heron.*

1. Define Jurisprudence.
2. What is the distinction between Ethics and Jurisprudence?
3. Mention the different senses in which the term Jurisprudence has been used.
4. What ancient sect of philosophers maintained the opinion that politics and laws could not be reduced to a science?
5. Define Common and Statute Law.
6. What is the technical meaning of Equity in the English Law?
7. The Civil Law and the Criminal Law of a nation differ as to their respective ends?
8. If the violation of a right be committed, how do you distinguish whether it should come within the province of the Civil or of the Criminal Law?
9. What is the proper end of punishment?
10. The term *Law*, in the English language, is used in two distinct meanings.
11. Into what have Puffendorf, Chancellor de Coccoii, Heineccius, and Domat resolved the Law of Nature?
12. What have Hobbes and Spinosa held the first principle of Natural Law?
13. Mention the jurists who have held the sole principle of Natural Law to consist in the intrinsic rectitude and wickedness of actions.
14. Upon what did Bentham found Jurisprudence and Ethics?
15. What were the principal errors of Hobbes and Spinosa?
16. Is Rousseau's doctrine of an original social contract correct? If not, why not?
17. What is Mr. Reddie's first division of law?
18. What does Blackstone designate by the term Municipal Law? Is the phrase correct? If not, why not?
19. Define International Law.
20. Who first used the term "International?"
21. What is the proper province of all Coercive Law?
22. Define Procedure.
23. State briefly the advantages of a General Register of Deeds.
24. Define Copyright. State briefly the reforms required in the present Law of Copyright.

23rd September, 1852, 9 *o'clock, a.m.*

ARITHMETIC AND ALGEBRA.—*Examiner, John Mulcahy, LL.D.*

1. What is the ratio of an ounce Troy weight to an ounce Avoirdupois?
2. Explain the reason of the rule for multiplying vulgar fractions, and illustrate the process when the fractions are $\frac{3}{5}$ and $\frac{5}{7}$.
3. Reduce $\frac{4}{35}$ to a decimal.
4. Admitting the population of Ireland to have been 6,801,827 in the year 1821, and 7,767,401 in 1831, calculate, to two places of decimals, the rate per cent. which the increase of population in the interval is of the former population.
5. Calculate the interest on seventy-three pounds five shillings and sixpence, for two years and nine months, at $3\frac{1}{2}$ per cent.
6. Extract the square root of 12·6736.
7. Write down the sixth power of $(a \pm n)$.
8. Simplify the expression $\sqrt{20} + \sqrt{\frac{1}{5}}$.
9. Explain the use of logarithms in the extraction of the roots of numbers.
10. Find the values of x which satisfy the equation $x^2 - 5x = -6$.
11. If A can perform a piece of work in a days, B in b days, and C in c days, find the expression for the number of days in which A, B, and C will perform the work together.
12. A certain number consists of two digits, the sum of which is 9, and when the digits are interchanged the new number exceeds the former by 9. Find the number.

23rd September, 1852, 2 *o'clock, p.m.*

EUCLID AND PLANE TRIGONOMETRY.—*Examiner, John Mulcahy, LL.D.*

1. The three angles of a plane triangle are equal to two right angles. Required the proof.
2. Give the construction for cutting a line in extreme and mean ratio.
3. Give the construction for describing on a given right line a segment of a circle, containing an angle equal to a given acute angle.
4. Construct an isosceles triangle, such, that each base angle shall be double the vertical angle, and prove the efficacy of the construction.

5. Prove that two similar triangles are to one another in the duplicate ratio of the homologous sides.

6. Explain fully the mode of constructing a rectilinear figure, equal to one given figure, and similar to another.

7. Given a portion of a circle, show how to complete the circle.

8. Find the numerical value of the sine of 30°.

9. Prove sin. $(a + b) = \sin. a \cos. b + \cos. a \sin. b$, a and b being any two angles.

10. Find the expression for the square of one side of a triangle in terms of the other sides, and the angle contained by them.

11. Prove that the sum of two sides of a triangle : their difference :: tangent of half sum of the opposite angles : tangent of half their difference.

12. Given two sides of a triangle, and an angle opposite to one of them, show how to find the remaining parts of the triangle trigonometrically, and state distinctly under what circumstances *two* triangles will correspond to the *data*.

24th September, 1852, 9 *o'clock, a.m.*

NATURAL PHILOSOPHY.—*Examiner, John Stevelly, LL.D.*

If three forces be in equilibrio, prove that each may be represented in magnitude by the sine of the angle contained by the directions of the other two.

Granting that the equivalent of any two forces, acting at the same point, is in the direction of the diagonal of the parallelogram whose sides represent these forces; prove that the length of the diagonal represents the magnitude of that equivalent.

The force R acting in a given direction is the resultant of the forces P and Q, acting in given directions; prove that P is the resultant of R and, — Q (or Q in the opposite direction).

A man walks on an inclined plane wheel; express the moment of the part of his weight which is effective to turn the wheel in terms of the inclination of its plane to the horizon, and the distance from its centre at which he walks.

Several forces are in equilibrio on the same lever; what is the relation which connects them, and the arms at which they respectively act? Define strictly the term "arm."

The length of the pendulum which swings seconds in London is 39·13929 inches; deduce from thence to the third place of decimals, the space through which a heavy body will fall freely by gravity in one second.

State the conditions which must be fulfilled, that a body may float in stable equilibrium on a fluid.

If a tube, open at both ends, be inserted, air tight, into the top of a vessel with vertical sides, filled with water (or other homogeneous liquid), prove that the fluid will flow out of an orifice at the bottom of the vessel, with a uniform velocity, until its surface have descended to the level of the lower opening of the tube. Also show the limit to the length of the tube immersed in the liquid that this uniform velocity may be maintained throughout.

What is the proportion of the pressure on the circular bottom and on the entire curved surface of a cylinder, filled with heavy fluid?

Two vessels containing air of different densities communicate by an orifice; what is the velocity with which the air will rush through the passage.

Explain the method of finding the ratio of the sines of incidence and refraction for transparent media, liquids and rigid bodies.

Explain what is meant by the index of refraction.

Describe the manner in which the simple microscope aids the eye.

By the solution of what spherical triangle is the point of the horizon determined at which the sun is to rise at sea on a given day, the latitude having been previously obtained.

How are the celestial latitude and longitude of a heavenly body deduced from its declination and right ascension?

Keplier, when comparing the observations of Tycho, perceived that the apparent horary angular motion of the sun varied in the proportion of the area of his disc; how did he from thence deduce the equable description of areas by the radius vector of the earth?

24th September, 1852, 2 *o'clock, p.m.*

CHEMISTRY.—*Examiner, James Apjohn, M.D.*

1. Assuming the truth of the doctrine of Atoms, does it necessarily follow that the equivalent numbers of chemists represent atomic weights?

2. State the rule of Berthollet in relation to the mutual decomposition of saline compounds, and illustrate it by an example.

3. Explain the ordinary methods of preparing the nitrous and nitric oxides, and mention the characters by which they are best distinguished from each other.

4. Explain in symbols the reactions in virtue of which chlorine may be separated from the chloride, and iodine from the iodide of potassium.

5. By what experiments would you demonstrate the presence of aqueous vapour, carbonic acid, oxygen, and nitrogen, in the atmosphere, and how would you determine their relative quantities?

6. Enumerate the different gases which are evolved during the destructive distillation of bituminous coal, and specify those which are removed in virtue of its purification, and the processes by which this is accomplished.

7. Express in symbols the action of dilute sulphuric acid on cadmium, and of oil of vitriol on silver.

8. What, according to Fownes, are the final results of the action of atmospheric oxygen on a solution of green vitriol?

9. How would you *part* the silver and gold of an alloy containing 50 per cent. of the latter metal?

10. Explain the production of oxalic acid from sugar, and the reactions which ensue when it is treated 1° with oil of vitriol, 2° with the terchloride of gold.

11. Give, in symbols, the action of chlorine on an excess of the water of ammonia.

12. Write the composition of starch, dextrine, and grape sugar, and state the chemical process by which the former may be converted into either of the latter.

13. What are the conditions and products of the vinous fermentation, and what is Liebig's theory of *ferments*?

14. Mention the means by which the following metals (in solution) may be most readily detected, viz.—iron, zinc, manganese, silver, lead, mercury, copper, antimony, arsenic.

15. State and explain the methods of preparing the following important chemical agents, viz.—water of ammonia, nitric acid, and muriatic acid.

16. Explain the paradox of the air feeling colder after the commencement of a thaw.

17. What are the conditions of the atmosphere which favour most the production of dew?

18. What is the influence of variations of atmospherical pressure on the boiling points of fluids?

19. In order to draw a continuous supply of positive electricity from a *machine*, its cushions must be uninsulated. Why is this the case?

20. Zinc dissolves very slowly in acetic acid; but if a bit of silver be placed in contact with the zinc, the action is materially quickened. How does the silver act?

25th September, 1852, 9 *o'clock, a.m.*

BOTANY.—*Examiner, George J. Allman, M.D.*

1. Enumerate the leading differences between *Stems* and *Roots*.
2. What are *Medullary Rays*?
3. What is the elementary structure of *Medullary Rays*?
4. Give an example of an arborescent *Endogenous* plant, and of a herbaceous *Endogenous* plant; give also an example of an arborescent, and of a herbaceous *Exogenous* plant?
5. What are the normal positions of the *leaf-bud*? and what is meant by the expression *adventitious buds*?
6. Define the term *Stipula*.
7. Define the term *Bractea*.

ZOOLOGY.

8. Define the group *Echinodermata*.
9. Give the leading characters by which the *Crustacea*, *Arachnida*, and *Insecta*, are distinguished from one another.
10. Name and define the group of *Invertebrata*, under which are included the *Crustacea Arachnida*, and *Insecta*.
11. *Nautilus*, *Argonauta*, *Sepia*:—Contrast these three genera, and name the class of *Mollusca* to which they are referable.
12. What are the orders of the class *Reptilia*?
13. Enumerate the essential characters of the genus *Felis*.

25th September, 1852, 2 *o'clock, p.m.*

GERMAN.—*Examiner, Doctor Abeltshauser.*

"Guten Tag, wie geht's?" rief eine hier wohlbekannte Stimme. Ein Fußwanderer, ein Mann in anſtändiger Kleidung, aber von den grauen Kamaſchen bis zur grünen Schirmkappe beſtaubt, war durch den Thorweg eingetreten und hatte ſich dem Tiſch genähert, ohne von den Redenden anfänglich bemerkt zu werden "Ei, Herr Schmitz, ſieht man Sie auch einmal wieder?" ſagte der alte Bauer ſehr freundlich und ließ für den Ermüdeten durch den Knecht das Beſte, was ſich im Keller befand, herbeiholen.

IMMERMANN'S *Münchhausen.*

O ſchöner Tag, wenn endlich der Soldat
In's Leben heimkehrt, in die Menſchlichkeit,
Zum frohen Zug die Fahnen ſich entfalten,
Und heimwärts ſchlägt der ſanfte Friedensmarſch
Wenn alle Hüte ſich und Helme ſchmücken
Mit grünen Mayen, dem letzten Raub der Felder!
Der Städte Thore gehen auf, von ſelbſt,
Nicht die Petarde braucht ſie mehr zu ſprengen;
Von friedlichen, die in die Lüfte grüßen,—
Hell klingt von allen Thürmen das Geläut,
Des blut'gen Tages frohe Veſper ſchlagend
Aus Dörfern und aus Städten wimmelnd ſtrömt
Ein jauchzend Volk, mit liebend emſiger
Zudringlichkeit des Heeres Fortzug hindernd.

SCHILLER'S *Wallenstein.*

The dogs, in the meantime, which had made a dreadful baying at the commencement of the disturbance, seemed now to recognise the voice of him who stood without; for totally changing their manner, they scratched and whined at the door, as if interceding for his admission. The hermit speedily unbolted his portal, and admitted Locksley, with his two companions. "Why, hermit," was the yeoman's first question, as soon as he beheld the knight, "what boon companion hast thou here?"

SCOTT'S *Ivanhoe*.

25th September, 1852, 2 *o'clock, p.m.*

ITALIAN.—*Examiner, Doctor Abeltshauser.*

L'Italia è la terra della musica, e della luce. Trasportiamoci sulle sponde dell' Adriatico quando il Sole apparisce sull' orizzonte: scendiamo in riva del Tirreno allor che tramonta: e vediamo se vi ha cielo, che diffuso di serenità rida d'un azzurro più puro. Saliamo in vetta dell' Apennino o dell' Alpe; e tra il fragore degli Aquiloni, che van contrastando co' cerri, udiamo il rimbalzare delle onde, che si precipitano negli abissi: aggiriamoci su' colli ridenti di Posilipo o di Careggi, al tepente spirar degli Zeffiri, e al mormorar soave dei ruscelli, che ne fecondano le falde; e neghiamo che la natura sparso abbia in questa felice contrada quella varietà d' accordi e di suoni, che fu il principio dell' Armonia.

ROSINI—*La Monaca di Monza.*

Cerere, poi che della madre Idea
Tornando in fretta alla solinga valle,
Là dove calca la montagna Etnea
Al fulminato Encelado le spalle,
La figlia non trovò dove l' avea
Lasciata, fuor d'ogni segnato calle.
Fatto ch' ebbe alle guancie, al petto, ai crini,
E agli occhi danno, alfin svelse due pini;

E nel foco li accese di Vulcano,
E diè lor non poter esser mai spenti;
E portandosi questi uno per mano
Su'l carro che tiravan due Serpenti,
Cercò le selve, i campi, il monte, il piano,
Le valli, i fiumi, gli stagni, i torrenti,
La terra, e' il mare; e poi che tutto il mondo
Cercò di sopra, andò al Tartareo fondo.

ARIOSTO—*Orlando Furioso.*

I found such a pretty epitaph in the Certosa cemetery, or rather two: one was—

"Martini Luigi
Implora pace;"

the other—

"Lucrezia Picini
Implora eterna quiete."

That was all; but it appears to me that these two and three words comprise and compress all that can be said on the subject—and then, in Italian, they are absolute music. They contain doubt, hope, and humility; nothing can be more pathetic than the "implora," and the modesty of the request;—they have had enough of life—they want nothing but rest—they implore it, and "eterna quiete." It is like a Greek inscription in some good old heathen "City of the Dead."

BYRON'S *Letters*.

25th September, 1852, 2 *o'clock, p.m.*

FRENCH.—*Examiner, Doctor Abeltshauser.*

Il n'est point de touriste en Italie qui n'ait regardé avec plaisir les porteuses d'eau de Venise courant au pas gymnastique, d'un air preste et affairé. sur les dalles de la place Saint-Marc. Quoiqu' elles parlent un dialecte peu différent du vénitien, on voit bien, à leur costume pittoresque, à leur petite taille, à leurs traits délicats, qu' elles ne sont point de la race antique des Venètes. On les appelle *Bigolante* ou *Pagote*. Le premier de ces deux noms tient à leur métier, le second au pays d' où elles viennent. Pago est une île froide et stérile de l' Adriatique, située le long des côtes escarpées de la Croatie. Dans toutes les grandes villes, certaines industries sont exercées par des étrangers à qui la force de l'usage donne une sorte de privilége.

P. DE MUSSET.

Dans le commencement du siècle, l'or avait joui constamment en Europe d'une faveur marquée par rapport à l'argent. La valeur commerciale de ce métal demeurait en moyenne supérieure d' environ 1 pour 100 à sa valeur légale. L'or ne circulait plus qu' en Angleterre à l'état de monnaie; dans toutes les contrées qui ont un double étalon monétaire, la monnaie d'or, à peine frappée, redevenait marchandise et tendait à sortir de la circulation. Des trésors inattendus se révélaient sans que l'exploitation de ces gisements aurifères parvînt à rétablir l'équilibre entre les valeurs métalliques et à saturer le marché. La civilisation, en se développant dans les temps historiques, ne faisait que convertir en réalités les légendes des temps fabuleux. L'or en raison de l'importance et de la constance de sa valeur, semblait devoir être à perpétuité le symbole et l'agent principal de la richesse.

LEON FAUCHER.

I am fond of amusement, in whatever company it is to be found; and wit, though dressed in rags, is ever pleasing to me. I went some days ago to take a walk in St. James'-park, about the hour in which company leave it to go to dinner. There were but few in the walks; and those who stayed, seemed, by their looks, rather more willing to forget that they had an appetite, than to gain one. I sat down on one of the benches, at the other end of which was seated a man in very shabby clothes.

GOLDSMITH'S *Essays*.

27th September, 1852, 9 *o'clock, a.m.*

PHYSICAL GEOGRAPHY.—*Examiner, James Nicol, F.R.S.E.*

1. By what methods has the mean density of the earth been determined, and what are the results?
2. Give an account of the manner in which heat is communicated to the atmosphere, and how it is distributed through it in a vertical direction.
3. Describe the curve of the snow line in the northern hemisphere, and point out the causes on which its height depends.
4. Give an account of the constant and periodical winds, with the localities where they prevail, and their causes.
5. Explain the nature of isothermal lines, and state their influence on the distribution of organic beings.
6. Is there any proof that the climate of any parts of the earth has changed in historic times, or has not changed? What is it?
7. Describe the course of the Gulf Stream, and point out its influence on the climate of Europe.
8. What are the principal mountain chains of Asia? In what direction do they run, and what countries do they pass through?
9. Give an account of the principal active European volcanoes, with the dates of some of their most remarkable eruptions.
10. Mention some places in Europe where extinct volcanoes occur.
11. State the prevailing theories of the causes of volcanic action.

27th September, 1852, 2 *o'clock, p.m.*

SPECIAL GROUP, B :—

ENGLISH PHILOLOGY AND CRITICISM.—*Examiner, Geo. L. Craik, A.M.*

1. Give a distinct and logically arranged account of the composition of the English language; enumerating the various additions that have been made to its Gothic basis, and stating the circumstances under which they have been severally received.
2. Describe the ramifications of the Indo-European family of languages.
3. What is meant by the Moeso-Gothic language?
4. What are the principal existing Scandinavian tongues?
5. Explain the philological terms, *Francic* (or *Frankish*)—*Langue d'Oc*—*Langue d'Oyl* —*French*—and *Anglo-Norman*.
6. What do we mean by the Latin of the First and the Latin of the Second Period in the English language;
7. State the most important particulars in which the English of the age of Chaucer differs from that of the present day.
8. Enumerate the leading English poetical writers from the middle of the 14th to the middle of the 18th century; mentioning their principal works, and indicating the period in which each of them lived.
9. State the rule which determines the *person* of the verb that must be used in concord with two or more nominatives of different persons, and explain what you conceive to be its principle.
10. Note and explain in the following passage (from Milton's *Paradise Regained*, iv. 321) the words of Saxon origin; any poetical or unusual terms and constructions; any expressions of doubtful or difficult interpretation; and any prosodical peculiarities:—

> "Many books,
> Wise men have said, are wearisome; who reads
> Incessantly, and to his reading brings not
> A spirit and judgment equal or superior
> (And what he brings, what needs he elsewhere seek?)
> Uncertain and unsettled still remains,
> Deep-versed in books and shallow in himself,

Crude or intoxicate, collecting toys
And trifles for choice matters, worth a spunge;
As children gathering pebbles on the shore.
Or, if I would delight my private hours
With music or with poems, where so soon
As in our native language can I find
That solace?"

HONOR EXAMINATION IN ARTS.

1st October, 1852, 9 *o'clock, a.m.*

English Language and Literature.—*Examiner, Geo. L. Craik, A.M.*

1. Sketch the history of the English language; noting, briefly but clearly, the source of its original and main stream—the accessions it has received from other quarters, with the date, amount, nature, and effect of each—and the succession of the principal changes it has undergone, whether under the action of such foreign infusions, or in the process of its development from other causes.

2. Describe the principal English poetical works that belong to the period between the Norman Conquest and the appearance of Chaucer.

3. Characterize the poetical genius of Chaucer, and his manner of writing.

4. Characterize the genius and manner of writing of Spenser.

5. Explain the nature of what has been called the Periodic style, with its recommendations and disadvantages, as pointed out by Aristotle (*Rhet.* III. 9.), or by Archbishop Whately (*El. of Rhet.* III. 2).

1st October, 1852, 2 *o'clock, p.m.*

Elements of Geology and Physical Geography.—*Examiner, James Nicol, F.R.S.E.*

1. What are the characteristic marks of the stratified, igneous, and metamorphic classes of rocks, and in what manner are they supposed to have been produced?

2. Mention a few of the more common mineral constituents of rocks, and give their external characters.

3. Give an account of the chief subdivisions of the tertiary formation, and describe the deposits of this age found in England.

4. In what manner have mountain chains been produced? Give an account of Elie de Beaumont's theory of their age.

5. Mention some of the principal table-lands on the earth, with their elevations above the sea level.

6. Describe the more important physical peculiarities of the several continents, and mention the races of men by whom they are inhabited.

7. Explain the mode of formation of rain and dew, and point out the differences between them.

8. Mention the variations in height to which the barometer is subject in different latitudes, and explain the causes of these variations.

2nd October, 1852, 9 *o'clock, a.m.*

Heat.—*Examiner, James Apjohn, M.D.*

1. If l and l' be the lengths of a bar of metal at temperatures t and t' respectively, what are, in relation to its length at 32°, the coefficients of its lineal, its cubic, and its superficial expansions for one degree Fahrenheit?

2. Write the formula to be employed in calculating, according to the method of Dumas, the specific gravities of the vapours of liquids, and apply it to the following results of an experiment on chloroform recently made, viz.:—

$w = 1334{\cdot}13$ grains. $w' = 1354{\cdot}31$ grains. $c = 28{\cdot}66$ cubic inches. $m = {\cdot}30$ cubic inches. $p = 30{\cdot}494$. $p' = 30{\cdot}494$. $t' = 51^\circ{\cdot}6$. $t' = 213^\circ$.

N.B.—w is the weight of the ball filled with dry air, the pressure being p, and the temperature t.

w' is the weight of the ball filled with the vapour of chloroform at the pressure p' and temperature t'.

c is the capacity of the ball at temperature t'.

m is the volume of the unexpelled bubble of air.

3. If you have 86 cubic inches of atmospheric air at the temperature of 52°, and under a pressure of 30·342 inches, and whose dew point is 40°, what will its volume be if dried, and reduced to the temperature of 60° and pressure of 30?

N.B.—The force of vapour at 40° = ·248 of an inch.

4. What is the law of cooling of a hot body placed in atmospheric air, as laid down by Newton?

5. If 2 lbs. of steam at 212° be passed into 9 lbs. of ice at 32°, what will be the temperature of the mixture?

N.B.—Latent heat of steam = 967°; latent heat of water = 140°.

6. What are the relative weights of water, alcohol, and ether, which give equal volumes of vapours at their respective boiling points?

N.B.—The specific gravities of the vapours of these liquids are at the same pressure and temperature—

Vapour of water, - - - -	·622
Do. alcohol, - - - -	1·613
Do. ether, - - - -	2·586

7. As we descend beneath the earth's surface towards the stratum of invariable temperature, the difference between the maximum and minimum temperatures of the year diminishes. What is the law which it observes?

8. Assuming the specific heats of hydrogen and oxygen as 3·293 and ·236 respectively, how do you show the insufficiency of the theory of Irvine and Crawford to account for the heat of chemical action?

9. If a ball of glass drawn to a capillary point weighs, when filled with mercury at 32°, W grains, and loses of this, by having its temperature raised to 212°, *w* grains, what is the mean cubic expansion of the glass ball for 1° Fahrenheit within the range mentioned—that of mercury being represented by K?

10. What were the results of Mitscherlich in relation to the expansion of crystals?

CRYSTALLOGRAPHY.

1. Define the six crystalline systems by their axes.
2. What are the uniaxal, and what the biaxal systems?
3. What uniaxal crystals are said to be *positive* or *attractive*, and what *negative* or *repulsive*? Explain also the meaning of these terms.
4. Enumerate the simple crystals of the first system which do not admit of hemihedral forms, and the hemihedral forms of same system which have parallel faces.
5. Name the compound form of first system, the notation of whose dissimilar faces is, according to Rose, $a : a : a$, and $\frac{1}{2}(a : ma \infty a)$.
6. What is the compound form of the second system, the notation of whose dissimilar planes is $a : a : c$, and $a \infty a : c$.
7. Mention the names and give the notation of the holohedral crystals of which the rhombohedron and the scalenohedron are hemihedral forms.
8. In the case of a rhombic prism with terminal faces parallel to the secondary axes, how, by means of the goniometer, or by examining the manner in which the terminal edges are modified, would you determine to which of the three prismatic systems it belonged?
9. Six-sided prisms are sometimes met with in the right prismatic very similar to those which occur in the rhombohedral system. How may they be distinguished?
10. In the fourth system a compound form is sometimes, though rarely met with, scarcely to be distinguished by the eye from the rhombic dodecahedron of the first system. How is this form produced, and what is the notation of its faces?

2nd October, 1852, 9 *o'clock, a.m.*

JURISPRUDENCE.—*Examiner, Professor Heron.*

A. 1. In the development of property there is a tendency to give the individual possessor the absolute disposal of his land. Illustrate this principle by historical examples.

2. Savigny, in his latest work, has united two schools of law.

3. To what does Savigny compare the growth and development of law?

4. Two misunderstandings have contributed to the erroneous opinion that states may have been formed through the will of individuals, and through contract or compact.

5. To what portions of the law of a state is the statute law at first applied?

6. What was the fundamental origin of law?

7. What was the great defect in Bentham's system?

8. What is the object of a Register of Deeds?

9. Divide law according to its origin and development in order of time.

B. 1. What is the reason which occasions the necessity of governing a territory as a dependency, and not as an integral portion of the state?

2. In the colonization of savage districts, whether should the purchase of land from the natives by individual settlers be permitted, or should the Government alone assume the purchase? State the reasons for the proposition which you adopt.

3. Enumerate briefly the legal powers which ought to be retained by the Home Government, and which ought to be intrusted to the Colonial Government.

4. The laws of a dependency are peculiarly open to technical objections.

C. 1. What modes of trial existed in England before trial by jury?

2. State the development of trial by jury after the Norman Conquest.

(a) Originally what were the jurors?
(b) Explain the term "*venue.*"
(c) Explain the phrase, "*and therefore he brings his suit,*" at the end of a declaration.

3. What was the origin of the rule as to the requirement of unanimity in the jury?

4. The enforced unanimity has one great advantage?

5. Should the rule as to unanimity be relaxed in civil cases? If so, state the reasons. If not, why not?

6. Should the rule as to unanimity be relaxed in Criminal cases? If so, state the reasons. If not, why not?

7. Of late years it has been maintained that the preliminary proceeding by Grand Jury in presenting criminals is useless, and ought to be abolished. Should this proposed change be adopted—

   (a) In the civic districts, where paid magistrates, for the most part, commit prisoners for trial?

   (b) In the rural districts, where unpaid magistrates commit prisoners for trial?

8. Should a new trial be allowed in cases of conviction? How does the Constitution now provide a remedy for an erroneous conviction?

9. Should a new trial be allowed in cases of acquittal? How does the law of Scotland provide in cases of failure of evidence where the jury entertains a strong opinion as to the guilt of the prisoner?

D. 1. "Fraudulent bankruptcies are by no means of unfrequent occurrence. Mr. H—— was obliged to employ several men, who acted as commercial spies upon the debtors of the firm, and gave timely notice of every thing approaching to a shut-up. On such information being obtained, the measures adopted were stringent and immediate; the debtor was seized before he had the slightest inkling of his roguery having been discovered; his house, goods, and chattels were taken possession of by the distraining creditor, and he himself borne off to the Palace of Justice, where he was immediately made to undergo every torture that human invention could inflict, till he was at length very lothfully forced to confess the exact amount of treasure he possessed."—*Neale's Residence in Siam*, p. 178.

   (a) What similar cruelties were practised in the ancient bankrupt laws of Rome and of England?

   (b) For what reason do punishments diminish in positive severity with the progress of civilization?

2. What are the essential requisites of punishment?

3. Certain classes of crimes cannot be prevented by any system of police, or by any severity of punishment. How are they to be prevented?

2nd October, 1852, 9 *o'clock, a.m.*

POLITICAL ECONOMY:—

PAPER, No. 2.—*Examiner, Professor Heron.*

1. Upon what portions of the price of a commodity do the occasional and temporary fluctuations in its market price chiefly fall?

2. Adam Smith enumerates five principal circumstances which make up for a small pecuniary gain in some employments, and counterbalance a great one in others.

3. Between what years was the effect of the discovery of the mines of America in reducing the value of silver completed?

4. What is the foundation of the steadiness in the price of the precious metals?

5. What was the proportion between the respective values of gold and silver—

   (a) Before the discovery of the mines of America?

   (b) In the year 1650?

6. The progress of improvement has different effects upon three different sorts of rude produce.

7. The low money price of cattle and poultry is a decisive proof of the poverty or barbarism of the times, for two reasons.

8. Adam Smith divides fixed capital into four classes.

9. What is the characteristic of fixed capital?

10. Adam Smith divides circulating capital into four classes.

11. According to Adam Smith, capital may be employed in four distinct ways.

12. The manufactures which are fit for distant sale seem to have been introduced into different countries in two different ways.

13. The increase and riches of commercial and manufacturing towns contributed to the improvement and cultivation of the countries to which they belonged in three different ways.

14. There are two great causes of the prosperity of all new colonies.

15. Adam Smith enumerates four trades which it is possible for a joint-stock company to carry on successfully without an exclusive privilege. What are they? The development of society has produced other such trades since the time of Adam Smith. Enumerate them.

16. Adam Smith enumerates four maxims on Taxation.

2nd October, 1852, 2 *o'clock p.m.*

POLITICAL ECONOMY.—*Examiner, Professor Heron.*

A. 1. What were the doctrines of the Mercantile system? Show their errors.

2. Dr. Chalmers and M. de Sismondi have maintained that the unproductive expenditure of the rich is necessary to the employment of the poor; and that the accumulation of the funds so employed would be waste, since there would be no market for the

commodities which the capital so created would produce. Is this doctrine correct? If so, how is it to be proved? If not correct, how is it to be disproved?

3. An economic principle explains the great rapidity with which countries usually recover from a state of devastation by war or famine.

4. What elements determine the productiveness of the labour of a community?

5. The greatest advantage, next to the dexterity of the workman, derived from the minute division of labour which takes place in modern manufacturing industry, is not mentioned by Adam Smith.

6. By what is the division of labour limited?

7. Rossi has pointed out the tendency of mankind to seek hazardous pursuits, in which the gains are great, but the success doubtful. Is there any means of mitigating the evils caused to individuals by the disastrous chances of such careers?

8. Whether does the free importation of foreign productions increase or diminish the general demand for labour in a country? Prove the proposition which you adopt.

9. Into what three portions may the profits of capital be resolved?

B. 1. Three principal methods of emigration have hitherto prevailed. What are they? State your opinions of them, and give examples.

2. No scheme of emigration, at the expense of government, has been successful in transplanting, in any numbers, the superior classes of labourers and mechanics. How do you account for this? Is it to be attributed to the machinery necessarily employed?

3. What have been the real objects of the different emigration schemes upon which the public money has been expended—

(a) On the part of the mother country?

(b) On the part of the colonists?

4. The proceeds derived by government from the sale of land in Australia have been devoted to defraying the expenses of emigrants. Was this a proper method of expending such money? If so, state the reasons. If not, how should this money have been expended?

5. From 1831 the fund realized by the sale of land in Australia was employed in the importation, principally, of able-bodied labourers. These were employed as shepherds by the squatters; and the regulations of the Emigration Commissioners, as prescribed to them by the pastoral interest, excluded families as much as possible.

(a) How did this system check free emigration?

(b) Whether had it a tendency to raise or lower the rate of wages in Australia, and among what classes of labourers?

6. In August, 1838, Lord Glenelg instructed Sir George Gipps to substitute 12*s*. for 5*s*. per acre, as the upset price of ordinary land in Australia, saying, "If you should observe that the extension of the population should still proceed with a rapidity beyond what is desirable, and that the want of labour still continues to be seriously felt, you will take measures for checking the sale of land even at 12*s*." Following out this policy, in 1841 the minimum price of land in the Australian Colonies was fixed at £1 per acre. Do you approve of the policy of checking the dispersion of the population by putting a high price on land? If so, state the reasons. If not, why not?

7. The Select Committee of the House of Commons, 1841, reported, "That the minimum price of land in South Australia may safely be raised above the present amount of £1 per acre; and, that in fixing such amount, it is desirable to keep in view the principle of maintaining such an amount as may tend to remedy the evils arising out of a too great facility of obtaining landed property, and a consequently disproportionate supply of labour, and exorbitant rate of wages."

(a) Had the cheapness of land any, and what effect, on the rate of wages?

(b) This recommendation of the Committee disregarded the two principal motives which induce the industrious classes to emigrate.

(c) If the squatters of Australia had been successful in lowering very much the rate of wages, what would have been the ultimate result on emigration?

8. A scheme was started in 1851 of founding a pauper colony of Irish on a fertile, unpeopled tract, near Seville. State the principal economic cause which would have operated against its success?

C. 1. In reducing taxation, a different system should be adopted in reference to the excise, and in reference to the customs.

2. What taxes in the United Kingdom are now imposed directly on income?

3. Mr. Sheil, in his speech against the income tax (1845), said, "What can be more unjust than to impose the same tax upon a man whose income is derived from his intellectual toil—which may be called the sweat of his mind—and upon the man whose income is as stable as the earth upon which we tread." Under the present law, rent, profits, and wages, alone pay the income tax. What other species of income ought to be taxed, in the same proportion, in order to render the income tax just?

4. State the advantages of a direct tax on income over indirect taxation. In what order of reduction should the present system of indirect taxation be gradually abolished?

D. 1. What are the two functions of money?

2. If, in consequence of the discovery of the gold mines of California and Australia, the value of gold be diminished, what will be the first probable result on the metallic currency of England?

3. If, in consequence of the Californian and Australian discoveries, the value of gold should constantly diminish from year to year, what remedy do you propose to avoid the consequent derangement of the currency?

2nd October, 1852, *2 o'clock, p.m.*

CHEMISTRY.—*Examiner, James Apjohn, M.D.*

1. What is the relation between the atomic weights, atomic volumes, and specific gravities of the elementary bodies?

2. Explain how acetate of potash may be decomposed by carbonic acid, and point out the bearing of such result on the views of Berthollet, in relation to the causes of chemical decompositions.

3. State why iodine can only be partially precipitated from a soluble iodide by sulphate of copper alone, and explain in symbols the reactions which ensue when its complete separation is accomplished by a mixed solution of sulphate of copper and green vitriol.

4. How is Gay Lussac's chlorimetric process conducted, and what is the theory of it?

5. If w grains of a mixed peroxide ($Mn\,O_2$) and hydrated sesquioxide ($Mn_2\,O_3$, HO) of manganese, evolve a grains of carbonic acid, how do you show that its per centage of peroxide will be given by the expression—

$$\frac{M\,Ma-2\,CMw}{2\,c\,(M'-M)}\times\frac{100}{w},$$

in which c, M, and M are the atomic weights of carbonic acid, peroxide, and hydrated sesquioxide of manganese respectively?

6. If a mixed solution of chloride and bromide of a metal give, with nitrate of silver, a precipitate weighing 74·32 grains, and that this, when heated in an atmosphere of chlorine, is reduced to 66·24 grains, what are the quantities of chlorine and bromine in the original solution?

N.B.—The following are the atomic weights of chlorine, bromine, and silver:—

Chlorine, ...	35·5
Bromine, ...	80
Silver, ...	108

7. How would you make the analysis of a compound, including nickel, iron, antimony, arsenic, and sulphur, and assuming the results to be the following, viz:—

Nickel, ...	27·02
Iron, ...	1·83
Antimony, ...	50·84
Arsenic, ...	2·69
Sulphur, ...	17·62

Calculate the rational formula of the compound, taking care to group together the isomorphous elements.

N.B.—Atomic weight of nickel, . .	= 29·5
„ iron, . .	= 28
„ antimony, . .	= 129
„ arsenic, . .	= 75
„ sulphur, . .	= 16

8. Explain in symbols the process by which marsh gas may be artificially formed.

9. How would you analyze a mineral containing silex, alumina, potash, soda, lime, and magnesia; and assuming the results to be—

Silex, ...	65·82
Alumina, ...	19·00
Potash, ...	12·25
Soda, ...	3·30
Lime, ...	·34
Magnesia, ...	·07

Calculate its rational formula.

N.B.—The following atomic weights are to be used—

$SiO_3 = 45·3$. $Al_2O_3 = 51·4$. $KO = 47$. $NaO = 31$. $CaO = 28$. $MgO = 20$.

10. Give the formula of the preceding mineral on the hypothesis of silicic acid being represented by the symbol SiO_2.

ELECTRICITY.

1. What is the relation between the thickness at any point of the electric tunic investing a charged conductor, and the pressure it exerts on the surrounding air?

2. What are the different causes of the loss of charge which an excited conductor is constantly suffering, and how, by the method of Coulomb, would you investigate its amount in a minute of time?

3. If two material molecules, separated by the distance d, have electric charges represented by e and $\pm e$, what is the expression which will represent the force with which they repel or attract each other?

4. If a series of four jars be charged 1°, when arranged so as to form the ordinary electric battery, 2° so as to form a *cascade* battery, so that the quantity of electricity within the first jar in the latter instance shall be equal to that within a single jar in the former arrangement, what will the ratio be between the sums of the electricities in the two cases on the inner coatings of the jars?

N.B.—The jars are supposed to be all of the same size and thickness, and the number connecting the quantities of electricity on the two coatings of each jar in both series is assumed to be $\frac{9}{10}$.

5. How do you show that with such a cascade battery as is supposed in the preceding question, the limiting value to which, as the number of jars augments, the sum of the electricities on the inner coatings constantly approaches, is exactly equal to ten times the charge within the first jar.

6. Give the theories of the electrophorus, the jar, and the condenser, and show that all three involve the same principle.

7. A galvanic couple, consisting of iron and copper, when charged successively with dilute acid and water of ammonia, gives currents in opposite directions. Mention its direction in each case, and point out how such result is inconsistent with the theory of contact.

8. Explain the origin of the terms "anode" and "cathode," and the general principle which, according to Becquerel, governs the production and direction of thermo-electric currents.

9. Under what circumstances does a given galvanic current produce induced currents, and what is their direction?

10. How do you show, on the principle of Ohm, that if the quantity of the electric current is to remain the same when passed through two decomposing cells as when passed through only one, the number of couples must be doubled.

4th October, 1852, 9 o'clock, a.m.

NATURAL PHILOSOPHY.—*Examiner, John Stevelly, LL.D.*,

1. A material point is acted on by a number of forces given in magnitude and direction. Deduce the equations of their resultant.

2. What precaution must we observe, if at any time we require to suppress a system of forces which equilibrate, from another system which equilibrate, before we can conclude that the residual forces will also equilibrate? Exemplify the importance of this caution.

3. Let M be the total mass of a system whose parts have the mass m, m', m'', &c.; let R be the distance of the centre of gravity of the whole system from the origin of co-ordinates, r, r', r'', &c., the respective distances of the centres of m, m', m'', &c., from the same origin; and let ρ, ρ'_1, ρ''_2, be the distances of m from m'; m' from m'', and so on. Prove that—

$$M^2 R^2 = M\,\Sigma\, m r^2 - \Sigma m m'\, \rho^2.$$

4. Prove that the volume generated by a plane curve, when it revolves round an axis in its plane, is equal to the area enclosed by the curve, the axis, and the ordinates, from its extremities multiplied by the path of its centre of gravity.

5. The relative motions of the parts of any system are determined by their changes of mutual distance in pairs, and the changes of angular position of the lines which join them two and two. Prove that if a common motion be imparted to all the parts of any system, their relative motions will remain unchanged.

6. Prove that any impulse communicated to any part of a free body or system, imparts the same motion to the centre of gravity of that body or system, as if that impulse were applied to the entire mass concentrated in that centre of gravity.

7. A material point is acted upon by a force constantly directed to a fixed centre; integrate the general equations of motion, and find the equation of the plane to which the motion is confined.

8. Prove that $y\frac{dx}{dt} - x\frac{dy}{dt}$ is double of the area swept over by the projection of the radius vector, on the plane of $x\,y$ in the unit of time.

9. Deduce the polar equations of motion of a material particle, acted on by a force which is continually directed to the pole as a centre.

10. Investigate the position of the centre of oscillation of a tubular cylinder of any homogeneous material, whose inner radius is r', outer radius r, and length $2\,z$, suspended by a connexion without weight, whose perpendicular distance from centre of gravity to axis of suspension is l.

11. A uniform elastic string or spring, whose length is l, is fastened by one end to a perfectly smooth horizontal plane, and drawn along the plane by a force w, acting at its other end. Investigate its increase of length. State clearly the experimental fact on which the investigation is founded.

12. The same string or spring is freely suspended by one end, and supports only its own weight w'. Investigate its increase of length. Also, if it support, beside its own weight w', the additional weight w attached to its lower end.

4th October, 1852, 9 o'clock, a.m.

LOGIC.—*Examiner, Rev. William Fitzgerald, A.M.*

1. Bacon denies that the consent in favour of Aristotle's philosophy was a "*verus consensus.*" Why?

2. Bacon notices four general faults in the "*processus a rebus ad axiomata,*" as made in his time.

3. What is the true aim of philosophy according to Bacon?

4. What does Bacon mean by "Forms?"

5. Why, according to Bacon, cannot syllogism suffice for discovering new sciences, or rectifying the old?

6. "I ate A and B several days, and, on each occasion, was troubled with indigestion. Now, it could not have been A that disagreed with me, because I have often eaten that with impunity: therefore, it must have been B."

Is the above a correct induction.

7. Distinguish the meanings of the term "species," as used by naturalists and by logicians, respectively.

8. What is the true force of the logical copula?

9. Distinguish the meanings of "must" and "may," in the following propositions:—"He must be very sorry for his father's death, since he loved him much." "I may go to London to-morrow, but I am not sure." "I may go to London if I please." "He may recover now, but he must die sooner or later."

10. If a premise be made to change places with the conclusion in any syllogism, the result can never be a legitimate syllogism.

11. "If Cæsar was a tyrant, he deserved death." How should this hypothetical be *reduced*? State the objections to Aldrich's method.

12. Give a general sketch of the difference between Sir W. Hamilton's Formal Logic and that of Professor De Morgan.

4th October, 1852, 2 *o'clock, p.m.*

METAPHYSICS.—*Examiner, Rev. William Fitzgerald, A.M.*

1. The old doctrine of *sensible species*, and the Theories of Malebranche and Leibnitz, had a common origin in a supposed difficulty.

2. What were Stillingfleet's chief objections to Locke's Essay?

3. What, according to Locke, proximately determines the will?

4. In what does Locke make the power commonly called Free-will to consist?

5. To what instances of knowledge has Locke's definition been supposed inadequate?

6. Can it be truly said (and, if so, in what sense,) that we *see* and *feel* the same object?

7. Explain the terms, "Realists," "Conceptualists," "Nominalists," and give instances of writers belonging to these schools respectively.

8. What is meant by the distinction between absolute and relative Place, Time, and Motion?

9. State the principal modern views of the nature of our ideas of space, causation, and substance (spiritual and material).

10. What were the chief objections to Des Cartes' argument—"Cogito, *ergo* Sum?" and how did he answer them?

11. What was Hume's enumeration of the Laws of Suggestion, from whom was it borrowed, and how may it be improved?

4th October, 1852, 2 *o'clock, p.m.*

LOGIC.—*Examiner, Rev. William Fitzgerald, A.M.*

1. Reverence for the judgment of antiquity in matters of science is, according to Bacon, founded on a confusion of thought.

2. Reduce into regular form (where necessary), and criticise the following syllogisms:—

I. The Divine law commands that sovereigns be honoured;
Victoria is a sovereign;
Therefore, the Divine law commands that Victoria should be honoured.
II. Those only who love God are happy;
Some rich men do not love God;
Therefore, some rich men are not happy.
III. That which has no parts, cannot perish by the dissolution of its parts;
The soul has no parts;
Therefore, the soul cannot perish by the dissolution of its parts.
IV. What men do every day, they do more than once;
Some men die every day;
Therefore some men die more than once.

3. What are the chief errors to be guarded against in reasoning from analogy?

4. Reduce the following into syllogisms, supplying premises, &c.:—

"It is commonly supposed that civil government is carried on by the combined influence of reward and punishment, applied, the former to all obedient, and the latter to all refractory citizens. But this appears to be a mistake, so far as reward is concerned. The protection given to all obedient members of a state cannot properly be viewed as a reward, since it is the very thing for the purchase of which they parted with their natural rights, and for which they pay their taxes. And, over and above protection, the governors of a state have no fund applicable to the general rewarding of the citizens, since all the funds of the government are drawn from the purses of the citizens themselves. Nor does it follow that, because men deserve punishment by disobedience, they deserve reward by obedience, since punishment is relative to a failure in duty, but reward to something beyond our duty. External obedience, too, it should be added, does not indicate right inward principle with the same certainty as outward disobedience indicates wrong principle. We may outwardly obey a known law from very questionable motives; but we can hardly disobey a known law without giving evidence of something really culpable. And even if we transgress from ignorance, still, in most cases, in a well-regulated state, that ignorance will be voluntary, and therefore in itself culpable. The magistrate, therefore, would not have the same means for ascertaining the fit subjects of reward—which is deserved not by outward acts, but by the character—as he has for ascertaining the fit subjects of punishment. Hence, it appears, that if it be needful to secure obedience by rewards, it must be done by some other rewards than those of civil society."

4th October, 1852, 2 *o'clock, p.m.*

METAPHYSICS.—*Examiner, Rev. William Fitzgerald, A.M.*

1. What did Reid mean by "common sense?"
2. Why is that term objectionable, and what substitutes have been proposed?
3. What uses does Locke allow, and what does he deny to maxims?
4. In order to avoid the necessity of allowing *intuitive* principles, it has been said that what are called "first truths," are only generalizations from experience. Do you consider this a reasonable answer to the objection?—and if not, why?
5. What, according to Brown, is the radical error of Reid's answer to Berkeley?
6. What was the difference between the Academics and the Pyrrhonists?
7. Is linear distance directly perceived by sight?—and if not, how do we come to estimate it by sight?
8. What are the chief objections to supposing secondary qualities to be in the things themselves?
9. What similar arguments have been urged against the real existence of the primary qualities as objects without us?
10. In what respect did the school of Condillac depart from that of Locke?

4th October, 1852, 2 *o'clock, p.m.*

NATURAL PHILOSOPHY.—*Examiner, John Stevelly, LL.D.*

1. A plane, the co-efficient of whose roughness is μ, is inclined to the horizon at the angle θ, a body is projected up it with the initial velocity v. Find the equations of motion, integrate them, show the extreme length up the plane to which the body will ascend, and what must be the relation of the constants, that it may turn and again descend the plane by its gravity.
2. In the preceding investigation, show the relation of the constants and the direction of the initial velocity that will afterwards continue uniform along the plane.
3. A uniform hemispherical vessel of given weight floats in a fluid, so that it is immersed to a depth equal one-third of its axis below the surface. What additional weight must be put into it that it may sink till two-thirds of its axis be submerged?
4. In the preceding case, how must the additional weight be placed in the vessel that it may continue to float with its axis upright? and state fully and clearly the reason.
5. A paraboloid of uniform density floats in a heavy fluid with its vertex downward, and is found to be immersed to a depth equal three-fourths of its axis. What is its specific gravity compared with that of the fluid in which it floats?
6. Explain the optical principle of the photometer, and the construction and use of Rumford's or Ritchie's photometer.
7. Define the centre of a lens, and prove that every lens bounded by spheric surfaces has a centre. Point out the diversity of situation of the centre in the six varieties of lenses.
8. Find the diameter of the least circle of chromatic aberration of a lens, the diameter of whose aperture is $2a$, and the indices of refraction for the extreme red and voilet μ and μ'.
9. Prove that the dispersion of a ray of compound light produced by refraction at a single surface varies very nearly as the tangent of the angle of refraction when the total dispersion is small.
10. Investigate the focal lengths of two lenses of equal aperture and in contact, which will form an achromatic combination.
11. Let m denote the mean anomaly of a planet, u its eccentric anomaly, and e the ratio of the eccentricity of the orbit to the major axis. Prove that $m = u - e \sin. u$.
12. Let v denote the true anomaly, the other data as before, prove that

$$\tan. \frac{v}{2} = \left(\frac{1+e}{1-e}\right)^{\frac{1}{2}} \tan \frac{u}{2}$$

13. In the planetary motions, mutual disturbances being supposed nothing, give the proof that the squares of the periodic times are as the cubes of the mean distances or semi-major axes of the respective orbits.
14. If two or more bodies move in circular orbits round central forces which are inversely as the squares of the distances, prove that the squares of their angular velocities are inversely as the cubes of their distances.

4th October, 1852, 2 *o'clock, p.m.*

CELTIC LANGUAGES.—*Examiner, John O'Donovan, LL.D.*

Translate the following passages into Irish:—

Since the crown of this kingdom, with the undoubted right and title thereof, descended upon his Majesty, the whole island, from sea to sea, hath been brought into his Highness' peaceable possession; and all the inhabitants, in every corner thereof, have been absolutely reduced under his immediate subjection. In which condition of subjects they will gladly continue, without defection, or adhering to any other lord or king, as long as they may be protected and justly governed, without oppression on the one side, or impunity on the other. For there is no nation of people under the sun that doth love equal and indifferent justice better than the Irish, or will rest better satisfied with the execution thereof, although it be against themselves, so as they may have the protection and benefit of the law, when upon just cause they do desire it.—*Sir John Davis.*

Translate the following passages into English:—

1. Atat doni sloigh dimbóra i n-dichumang na péne fris in tír n-etar-fhuartha anall, ocus cech n-uair tráighidh in pian dibh, in uair ele toet tairsibh. Is iat tra filet is in péin sin, .i. in lucht dianid combthrom a maith ocus a n-ole; ocus illo brátha mídhfidhthor eturru, ocus dileghfaidh a maith a n-olc is in lo sin, ocus hérthar iarum do purtt bethad hi frecnarcus gnuisi Dé trí bhithshir.—*Adamnan.*

2. A.D. 1066.—Rétla mhongach, ingnadh ádhbhal, do fhaicsin is in aer, dia Máirt iar Mincháise hic post Kal. Mai, co xxiii fuirre. Ro b'é a méd ocus a soillse, co n-chertatar daíne cor ba esca, ocus co cend cethre la baí and. Gilla-Bruidi, mac Domhnaill, mic Tighernain, mic Ualghairg, mic Neill Ui Ruairc, rí Breifne, do mharbhadh do mhac Gilla-cuirr h-Ui Chiuaith, do chois mairt, i n-oilen Dumha achair ar Loch mac n-En.—*Tighernach.*

3. A.D. 1531.—Sloigheadh las an Iustis Saxanach, le h-Iarla Chille dara, agus la maithibh Gaoidhel Ereann h-i d-Tir n-Eoghain, ar tharraing Ui Dhomhnaill agus Neill Oig Ui Neill, agus Sleachta Aodha Ui Neill, agus Tir Eoghain do losgadh leo ó Dhún Gal co h-Abhainn mhóir. Caislen nua Phuirt-an-Fhailleagain do bhriseadh, agus duthaigh Bhriain na Moicheirghe do chreachlosgadh las an sluagh ishin, agus Muineachán d'fhágbháil folamh for a g-cionn. O'Domhnaill agus Niall do dhol h-i g-ceann an t-sluaigh Ghallda sin co Cinn-árd, agus caislén Chinn-aird do bhriseadh leo. O'Neill imorra bhaí sidhe sluagh dirimhe ré a n-ucht, co nár lámhsat dol thairis sin h-i d-Tir n-Eoghain, co ro impaisiot na sloigh sin dia d-tighibh leath ar leath gan sith gan osadh ag Ua Neill riu.—*Four Masters.*

4. Do gheibh fos Stanihurst locht ar bhreitheamhnaibh tuaithe agus ar leaghaibh na h-Eireann; gidheadh is iongnadh liom mar fuair ann féin locht d'fhagháil ionnta, agus nachar thuig ceachtar diobh, ná an teanga i n-a raibh ealadha gach druinge dhiobh, ar m-beith dho féin ainbhfiosach 'san Ghaoidhilg fa teanga dhóibhsion, agus i n-a raibh an breitheamhnas tuaithe agus an leigheas scriobhtha. Oir ni raibh ar chumas dosan an breitheamhnas nó an leigheas do leigheadh 'san teangain i-na rabhadar, agus dá leighthidhe dho iad, ni raibh tuigse aige orra; agus measaim d'á réir sin gur ab ionann dáil do ag díomoladh an dá ealadhain do laudhamar, agus dáil an daill do dhíomolfadh dath éadaigh seach a chéile; óir mar nach féidir leis an dall breathnúghadh do dhéanamh idir an dá dhath, do bhrigh nach bh-faiceann ceachtar diobh; mar an g-céadna níor bh' fheidir leision breitheamhnas do dhéanamh ar an dá ealadhain reamhraidhte, do bhrigh nár thuig riamh na leabhair i n-a rabhadar scríobhtha, agus fós nár thuig na h-ollamhain d'ár bh'ealadhain iad, do bhrigh gur ab i an Ghaoidhelg amháin fá teanga dhíleas dóibh agus go raibh séision thríd agus thríd aineolach innte.—*Keating.*

1. Repeat the general rule which regulates the modern Irish orthography.
2. Explain the nature of aspiration and eclipses in Irish grammar. When does eclipsis take place in nouns, and when in verbs?
3. Decline the noun *fear*, a man, with and without the article *an.*
4. Decline the noun *grian*, the sun, with and without the article.
5. Decline the noun *súil*, an eye, with the adjective *gorm*, blue.
6. How are the degrees of comparison formed?
7. What are the usual initial changes in verbs?
8. How many tenses in the indicative mood of the Irish verb?
9. Describe the difference between the verbs *is* and *tá.*
10. How many irregular verbs are there, and in what does their irregularity principally consist?
11. How are adverbs formed?
12 What is the natural order of an Irish sentence?
13. When is the adjective placed before its substantive?
14. When does the adjective not agree with its substantive?
15. What peculiarity of construction is observable in the infinitive mood of Irish verbs?
16. What influence have prepositions on the initials of nouns when the article is prefixed; and on the initials of verbs when the relative is expressed or understood?
17. Parse the following sentence, and quote the grammatical rules which regulate its construction:—

Ni fhuil cineadh fo'n n-gréin le n-ab annsa ceart ina Eireannaigh.

5th October, 1852, 9 *o'clock, a.m.*

BOTANY.—*Examiner, George J. Allman, M.D.*

1. What is the *primordial utricle* of Hugo Mohl? How would you proceed to demonstrate it? and state in what respect its chemical constitution differs from that of the proper cell-wall.

2. What is meant by the term *symmetry*, as applied to the flower?

3. What is the true biological distinction between *analogy* and *affinity*? and give examples to illustrate this distinction.

4. Describe the inflorescence in *Dorstenia*, *Ficus*, and *Morus* respectively.

5. How has the departure from symmetry, in the flower of the *Cruciferæ*, been explained by reference to the alleged phenomenon of *chorization*?

6. What is the difference between a *sporadic* and an *endemic* plant? and give an example of each.

7. What are the geographical limits of the natural order *Epacridaceæ*?

8. Enumerate some of the genera most characteristic of the South African Flora?

ZOOLOGY.

9. What is meant by the expression *water-vascular-system*? and give an example of a group of invertebrate animals in which this system is present.

10. Describe the condition under which the auditory apparatus presents itself in the *Mollusca*.

11. To which of the sub-kingdoms of animals do you refer the *Cirrhipoda*? and state your reasons for so referring them.

12. Among the *Acephalous Mollusca* we have two orders characterized by the possession of a bivalve shell. What are these orders? and how are they distinguished from one another?

13. What are the characters of the *Perennibranchiate Batrachia*? and give an example.

14. Enumerate the genera of *Struthious* birds, and give the geographical range of each genus.

15. Describe generally the geographical distribution of the *Ruminantia*; and mention the region where the hollow-horned ruminants acquire their maximum.

5th October, 1852, 2 *o'clock, p.m.*

ALGEBRA AND PLANE TRIGONOMETRY.—*Examiner, John Mulcahy, LL.D.*

1. Develop $\frac{1}{(1+x)^2}$ by the method of indeterminate coefficients.

2. Find the sum of the series $1 \times 2 + 2 \times 3 + 3 \times 4 +$ &c., to n terms.

3. Find the sum of cos. a + cos. $(a+d)$ + cos. $(a+2d)$ + &c., to n terms.

4. Explain the logarithmic method of finding the sum of the m^{th} powers of the roots o a given equation, m being a positive integer, and apply it in the case of a quadratic.

5. Given the roots of the equation $x^n - 1 = 0$, determine those of the equation

$$x^n - n\,p\,x^{n-2} + \frac{n\,.\,n-3}{2}p^2x^{n-4} - \frac{n\,.\,n-4\,.\,n-5}{2\,.\,3}p^3x^{n-6} + \&c. = q.$$

6. Prove that the sum of the k^{th} powers of the roots of this equation $= 0$, when k is an odd number, and $= n.\frac{k\,.\,k-1\,.\,k-2\,\ldots\,\frac{k}{2}+1}{1\,.\,2\,\ldots\ldots\,\frac{k}{2}}.p$, when k is even, k being in both cases less than n.

7. State and prove Sturm's Theorem for finding the total number of real roots of a given equation which is supposed to have no equal roots.

8. The quantity under the sign of the square root in Cardan's formula for the solution of a cubic is a certain function of the differences of the roots; determine the exact form of the function, and hence show that in the *irreducible case* the roots are all real and unequal.

9. Given two equations between two unknown quantities, explain the mode of eliminating one of the quantities by the theory of symmetric functions, and show what may be the degree of the resulting equation.

10. One root of the equation $x^3 - 4x^2 - 4x + 20 = 0$ lies between 2 and 3. Find it to three places of decimals by Horner's method of approximation.

11. If the probability of the happening of an event in a single trial be p, find the probability of its happening at least h times in n trials.

12. Given $\frac{1}{R}$ the present value of £1, receivable at the end of a year; show how to compute, by means of a *table of mortality*, the present value of an annuity of £A, to expire with the last of two persons, whose ages are given.

13. Prove Wallis's formula, $\frac{\pi}{2} = \frac{2\,.\,2\,.\,4\,.\,4\,.\,6\,.\,6\,.\,\&c.}{1\,.\,3\,.\,3\,.\,5\,.\,5\,.\,7\,.\,\&c.}$

14. The roots of the equation $\eta^{2m} - 2\cos.\theta\;\eta^m + 1 = 0$, are comprised in one expression, and may be found by aid of a trigonometrical table.

15. Prove log. $(n+y) = \log.\,n + 2\,M\left(\frac{y}{2n+y} + \frac{1}{3}\left(\frac{y}{2n+y}\right)^3 + \&c.,\right)$ and show how the *modulus* of the common system of logarithms may hence be computed.

16. Prove that the base of Napier's system of logarithms is an incommensurable quantity.

17. Prove the formula $2\sin.\,A = \pm\sqrt{1+\sin.\,2A} \pm \sqrt{1-\sin.\,2A}$, and apply it to find the sine of 9°.

18. Expand cos. $^n x$ in terms of cosines of multiples of x, n being a positive integer, and find the corresponding expansion of sin. $^n x$ when n is even.

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6th October, 1852, 9 o'clock, a.m.

NEWTON AND THE DIFFERENTIAL CALCULUS.—*Examiner, John Mulcahy, LL.D.*

1. How does Newton construct the conic section which a body will describe round the focus, the initial circumstances of the motion being given?

2. Apply the method of *infinitesimals* to divide a given elliptic quadrant into two arcs, whose difference shall equal that of the semi-axes.

3. Cut the *maximum* ellipse from a given right cone. Show that there will be no *maximum* unless the vertical angle of the cone is below a certain value; and show that within this limit a *minimum* section exists as well as a *maximum*. (The sections are supposed to be drawn through a tangent to the base of the cone.)

4. If two bodies describe two similar orbits round centres of force similarly situated, the forces at corresponding points are proportional to the distances divided by the squares of the times of describing similar areas in the two orbits.

5. Express, in finite terms, the limiting value of the fraction, $\frac{\textit{Area}\ \mathrm{PQT}}{\mathrm{QR}}$ (see Newton's figures) in any curve.

6. Give Newton's proof that in an ellipse round the focus $\frac{\mathrm{QT}^2}{\mathrm{QR}} = \mathrm{L}$.

7. How does Newton compare the velocity at any point of a conic section described round the focus with the velocity in the equidistant circle?

8. If u and v be functions of x, prove Leibnitz's formula—

$$\frac{d^r(uv)}{dx^r} = v\frac{d^r u}{dx^r} + r \cdot \frac{dv}{dx} \cdot \frac{d^{r-1}u}{dx^{r-1}} + \frac{r \cdot r-1}{2} \cdot \frac{d^2 v}{dx^2} \cdot \frac{d^{r-2}u}{dx^{r-2}} + \text{\&c.}$$

9. Prove Taylor's Theorem, and thence deduce the development of $f(x+h,\ y+k)$.

10. Prove $\left(\frac{d}{dx} + a\right)^r u = e^{-ax}\left(\frac{d}{dx}\right)^r (e^{ax}u)$ where e is the base of Napier's logarithms, a a constant, and u any function of x.

11. If u be a function of any number of variables, x, y, z, &c., which are themselves all functions of another variable t, prove $\frac{du}{dt} = \frac{du}{dx} \cdot \frac{dx}{dt} + \frac{du}{dy} \cdot \frac{dy}{dt} + \text{\&c.}$ Modify this expression when $x = t$, and explain the contradiction which it appears to involve in that case.

12. When u is a homogeneous function of any number of variables, x, y, z, &c., $x\frac{du}{dx} + y\frac{du}{dy} + z\frac{du}{dz} + \text{\&c.} = n\,u$, n being the degree of homogeneity. Required proof.

13. What does $\int\int \mathrm{V}\,dx\,dy$ become when x and y are expressed in terms of two new independent variables, s and t, V being a given function of x and y?

14. Expand sin. x and cos. x in powers of x by Maclaurin's Theorem, and thence deduce Demoivre's Theorem.

15. Explain the use of the differential calculus in finding the values of vanishing fractions and apply the process to evaluate $\frac{x^x - x}{1 - x + \log. x}$ when $x = 1$.

16. Assuming tan. $x = \mathrm{A}_1 x + \mathrm{A}_3 x^3 + \mathrm{A}_5 x^5 + \text{\&c.}$, prove that $\mathrm{A}_{2n+1} = \frac{\mathrm{A}_{2n-1}}{2} - \frac{\mathrm{A}_{2n-3}}{2.3.4} + \text{\&c.}, \pm \frac{\mathrm{A}_1}{2\,.\,3 \ldots .\,2n} \mp \frac{1}{2\,.\,3 \ldots (2n+1)}$.

17. Considering a differential as an infinitely small increment, prove $\frac{d}{dm}\int_a^b fx\,.\,dx = \int_a^b \frac{d}{dm} fx\ dx$, where m is a quantity independent of x, entering into fx, and of which quantity the limits of integration b and a are independent. How must the theorem be modified when either b or a depends on m? Does the theorem fail in any case?

18. Let $\mathrm{P}\,dx + \mathrm{Q}\,dy + \mathrm{R}\,dz$ be not an exact differential, and let it become one when multiplied by a factor, then P, Q, R (which are functions of x, y, z) must satisfy a certain condition. Investigate the condition.

6th October, 1852, 2 o'clock, p.m.

INTEGRAL CALCULUS.—*Examiner, John Mulcahy, LL.D.*

1. Find $\int \frac{dx}{x^3 + 1}$

2. Find $\int \frac{dx}{(1+x)\sqrt{1+x-x^2}}$

3. Deduce the exponential values of sin. x and cos. x from the integration of $\frac{dx}{\sqrt{1-x^2}}$

4. Reduce $\int dx\,e^{ax}\cos.^n x$ to $\int dx\,e^{ax}\cos.^{n-2} x$, and perform the final integration when n is an odd number.

5. Find $\int \frac{dx}{(1+x^2)\sqrt{1-x^2}}$

6. Find $\int \frac{dx}{x^3 - x^2 - x + 1}$

7. What is the condition of integrability of the expression, $M\,dx + N\,dy$? When this condition is satisfied, how is the integration effected?

8. Find the expression for $\int^n X\,dx^n$ in terms of simple integrations. What does it become when $X=0$?

9. Given a differential equation between two variables, the complete integral can be found in the form of a series by the aid of Maclaurin's Theorem. Prove this, and hence show that when $M\,dx+N\,dy$ is not an exact differential, a factor μ always exists such that $\mu(M\,dx+N\,dy)$ is an exact differential.

10. The equation $dy + Py\,dx = Xy^n\,dx$, where P and X are functions of x, may be reduced to $du + P'u\,dx = Q\,dx$. Prove this, and show how to integrate the latter equation.

11. Integrate the equation $(x+a)\frac{d^2y}{dx^2} + x\frac{dy^2}{dx^2} = \frac{dy}{dx}$

12. The integration of the equation $\frac{d^ny}{dx^n} + P\frac{d^{n-1}y}{dx^{n-1}} + Q\frac{d^{n-2}y}{dx^{n-2}} + \text{\&c.}, + Uy = 0$ may be reduced to the solution of an algebraic equation, when P, Q, &c., and U are constants. Prove this, and show how the form of the integral must be modified in the case of a pair of equal or imaginary roots.

13. Integrate the equation, $0 = \frac{dy}{dx} + \frac{1}{2}\frac{d^2y}{dx^2} + \frac{1}{2.3}\frac{d^3y}{dx^3} + \text{\&c.}$, *ad infinitum.*

14. Integrate the equations, $\frac{d^2y}{dx^2} - 4\frac{dy}{dx} + 4y = x^3$, and $\frac{d^2y}{dx^2} + n^2y = \cos. mx$.

15. Integrate the simultaneous equations, $\frac{dx}{dt} + ax + by = 0$, $\frac{dy}{dt} + a'x + b'y = 0$.

16. Explain the mode of integrating the equation $P\frac{dz}{dx} + Q\frac{dz}{dy} = R$, in which P, Q, and R, are functions of x, y, z, and give the theory of the process.

17. Integrate the equations, $x\frac{dz}{dx} + z\frac{dz}{dy} + y = 0$, and sec. $x\frac{dz}{dx} + a\frac{dz}{dy} = z \cot. y$.

18. Integrate the equation, $x\frac{d^2z}{dx^2} + 2xy\frac{d_2z}{dx\,dy} + y^2\frac{d^2z}{dy^2} = 0$, and verify the result by the elimination of the two arbitrary functions.

7th October, 1852, 9 *o'clock, a.m.*

GEOMETRY OF TWO DIMENSIONS.—*Examiner, John Mulcahy, LL.D.*

1. Give the geometrical analysis of the following problem:—To describe a circle so as to pass through a given point and touch two given circles.

2. Given the equations of two right lines referred to oblique axes of co-ordinates; find the expression for the tangent of the angle at which they intersect.

3. Let r be the radius vector, and p the corresponding perpendicular upon the tangent to any plane curve; prove that the radius of curvature at the extremity of $r = \frac{r\,dr}{dp}$, and apply the formula to the ellipse.

4. The middle points of the diagonals of a complete quadrilateral lie in one right line. Required the proof.

5. Find the locus of a point, from which, if we draw perpendiculars to the three sides of a given triangle, the triangle formed by joining their feet shall have a given area.

6. If any two circles, x and y, be described to cut three given circles; and if two triangles be formed whose sides coincide with the common chords, found by taking x and y respectively with the three given circles, the intersections of the corresponding sides be on one right line.

7. If the equation of a central conic be $Ax^2+Bxy+Cy^2+f=0$, the lengths of its semi-axes are given by the equation $(4AC-B^2)\rho^4+4f(A+C-B\cos. w)\rho^2+4f^2\sin.^2 w=0$, w being the angle under the axes of co-ordinates.

8. Find the expression for the area of an ellipse, in terms of the co-efficients of its general equation, referred to any axes of co-ordinates.

9. Given the general equation of the second degree: find, 1st, the equation of the polar of a given point; 2nd, the condition that the locus becomes two right lines.

10. Find the locus of the pole of a given right line, with respect to a conic of which four points are given.

11. Considering an ellipse as the locus of the vertex of a triangle, of which the base and sum of the sides are given; prove *geometrically*, 1st, that the bisector of the external vertical angle is a tangent to the ellipse. 2nd. That the locus of the foot of a perpendicular drawn to the tangent from one of the foci is a circle. 3rd. That the polar reciprocal of the ellipse, with respect to a circle having its centre at one of the foci, is another circle.

12. Given four points, such, that each of them is exterior to the triangle formed by the other three; prove that the locus of the centres of all the central conics, which can be described through them, is a hyperbola; and prove that its asymptotes are parallel to the diameters of two parabolæ, which can be drawn through the four points.

13. Considering the evolute of an ellipse as the *envelope* of all the normals, find its equation referred to the axes of the ellipse as axes of co-ordinates.

14. The locus of the intersection of tangents to a parabola containing a given angle, is

a hyperbola having the same focus and directrix, and whose asymptotes contain double the given angle.

15. Let two loci of the 3rd degree intersect in nine points; prove that any other locus of the 3rd degree which passes through eight of the points, passes also through the ninth. Pascal's theorem follows at once from this.

16. Let δ be the number of ordinary double points, and k the number of cusps on a curve of the n^{th} degree; prove that the degree of its polar reciprocal, with respect to any conic, is $n(n-1)-2\delta-3k$

17. Prove the following properties of the common cycloid:—1st. Its evolute consists of two semi-cycloids. 2nd. Its area = three times that of the generating circle.

18. Construct the radius of curvature at any point of a tractrix, and prove the evolute to be the catenary.

7th October, 1852, 2 *o'clock, p.m.*

GEOMETRY OF THREE DIMENSIONS, AND SPHERICAL TRIGONOMETRY.—*Examiner, John Mulcahy, LL.D.*

1. Prove that properties relating to angles at one of the foci of a conic may be deduced from those of angles at the centre of a circle by means of the *method of projection*.

2. If R be the radius of curvature at any point of a curve of double curvature whose arc is s, prove $\mathrm{R} = \dfrac{d\,s^2}{\sqrt{(d^2x)^2+(d^2y)^2+(d^2z)^2-(d^2s)^2}}$

3. Given the time of sunrise, and the time of daybreak, find the latitude of the place and the sun's declination.

4. Find the equation of a plane through three given points, and when the result is cleared of fractions, explain the geometrical signification of the four constants, the axes of co-ordinates being supposed rectangular.

5. Given the equations of two right lines referred to three rectangular axes of co-ordinates, find the expression for the shortest distance between the lines.

6. Prove that the determination of a system of *principal* chords in all surfaces of the second degree depends on a cubic equation.

7. When the surface is central, this cubic *immediately* determines the species of the surface, and its roots determine the lengths of the three semi-axes.

8. Determine the solid content of an ellipsoid in terms of its semi-axes.

9. Prove the existence of two sets of rectilinear generatrices of any hyperboloid of one sheet, and show that their projections on any of the principal planes are tangents to the section of the hyperboloid made by that plane.

10. If a surface whose equation is of the form $\dfrac{z^2}{\mathrm{R}}+\dfrac{y^2}{\mathrm{R}+h}+\dfrac{x^2}{\mathrm{R}+k}=1$ (where h and k are given positive quantities, and $h<k$) is to be described through a given point, prove that R is determined by a cubic equation whose roots are one positive, a second between 0 and $-h$, and a third between $-h$ and $-k$. Explain the geometrical meaning of this result, the co-ordinates being supposed rectangular.

11. Let the foregoing equation be written $\dfrac{x^2}{\mathrm{P}}+\dfrac{y^2}{\mathrm{Q}}+\dfrac{z^2}{\mathrm{R}}=1$, and, in plane of $x\,y$, let an ellipse be constructed having the equation $\dfrac{x^2}{\mathrm{P}-\mathrm{R}}+\dfrac{y^2}{\mathrm{Q}-\mathrm{R}}=1$, and, in plane of $x\,z$, an hyperbola whose equation is $\dfrac{x^2}{\mathrm{P}-\mathrm{Q}}+\dfrac{z^2}{\mathrm{R}-\mathrm{Q}}=1$; then:

   1. Each of these conics is the locus of the vertices of right cones which stand on the other.
   2. If a perpendicular be drawn from a point upon its *polar plane* with respect to the surface (see question 10), the traces of the perpendicular and plane on the plane of either of the conics above mentioned (*focal conics*) are pole and polar with respect to that conic.

12. Find the equation of the *envelope* of the surface whose equation is $\dfrac{x^m}{a^m}+\dfrac{y^m}{b^m}+\dfrac{z^m}{c^m}=1$, a, b, and c being connected by the condition, $a^n+b^n+c^n=k^n$. (m, n, and k are supposed to be given).

13. Given the base and the ratio of the sines of the sides of a spherical triangle, prove that the locus of the vertex is a spherical conic—*i.e.*, the curve of intersection of a sphere, with a concentric cone of the second degree.

14. The vertex of a right angle is fixed, while its plane turns on a given right line. If one leg of the angle move on a given plane. prove that the other will describe a cone of the second degree, and determine the cyclic planes of the cone.

15. A spherical triangle being proposed, whose sides are small compared to the radius of the sphere, if from each of its angles one-third of the *spherical excess* be subtracted, the angles so diminished may be taken for those of a plano triangle whose sides are equal in length to those of the proposed spherical triangle. Prove this, and state its practical application.

16. In any spherical triangle prove the following formula, and apply it to correct, for parallax and refraction, the observed angular distance of the moon and a fixed star:—

$$\text{versin. A} = \frac{\cos.\,(b-c)-\cos.\,a}{\sin.\,b,\ \sin.\,c}$$

17. In any spherical triangle, $\sin.^2\frac{1}{2}c = \sin.\left(\frac{1}{2}(a+b)+\theta\right)\sin.\left(\frac{1}{2}(a+b)-\theta\right)$, θ being an auxiliary angle such that $\sin.^2\theta = \sin.\ a\ \sin.\ b\ \cos.^2\frac{1}{2}C$. Apply this to find the angle subtended by two objects at the sun, given their heliocentric latitudes and longitudes.

18. Given any two right lines, by means of their projections on two given planes at right angles to one another (as in descriptive geometry), show how to find, *graphically*, the position and magnitude of a right line perpendicular to both.

8th October, 1852, 9 *o'clock, a.m.*

LATIN COMPOSITION.—*Examiner, Bunnell Lewis, A.M.*

Translate into Latin Prose:

And here I cannot but congratulate ourselves in this place on those habits of careful sifting and analysis which we either have, or ought to have, gained from our classical studies. Take any large work of a classical historian, and with what niceness of attention have we been accustomed to read it. How many books have we consulted in illustration of its grammatical difficulties; how have we studied our maps to become familiar with its geography; what various aids have we employed to throw light on its historical allusions, on every office or institution casually named; on all points of military detail, the divisions of the army, the form of the camp, the nature of the weapons and engines used in battles or in sieges; or on all matters of private life, points of law, of domestic economy, of general usages, and manners! In this way we penetrate an ancient history by a thousand passages, we explore every thing contained in it; if some points remain obscure, they stand apart from the rest—for that very reason distinctly remembered—the very page in which they occur is familiar to us.

Re-translate into Latin Prose:

In the annals of the magistrates, and the records, we may run over whole pages of consuls and dictators, with whose bravery, and successes also, the Roman people never once had reason to be dissatisfied. And what renders them more deserving of admiration than Alexander, or any king, is that some of those acted in the office of dictator, which lasted only ten, or it might be twenty days; none in a charge of longer duration than the consulship of a year; their levies obstructed by plebeian tribunes; often late in taking the field; recalled before the time to attend elections; amidst the very busiest efforts of the campaign, overtaken by the close of their official year: sometimes by the rashness, sometimes the perverseness of a colleague, involved in difficulties or losses; and finally succeeding to the unfortunate administration of a predecessor, with an army of raw or ill-disciplined men.

Translate into Latin Elegiacs:

Oh, fond attempt to give a deathless lot,
To names ignoble, born to be forgot!
In vain, recorded in historic page,
They court the notice of a future age:
Those twinkling, tiny lustres of the land
Drop one by one from fame's neglecting hand;
Lethean gulfs receive them as they fall,
And dark oblivion soon absorbs them all.

8th October, 1852, 2 *o'clock, p.m.*

LATIN VERSE.—*Examiner, Bunnell Lewis, A.M.*

Translate:—

(A.) VIRGIL.—ÆNEID, BOOK VIII.

Hæc inter tumidi lato maris ibat imago
Aurea, sed fluctu spumabant cærula cano;
Et circum argento clari delphines in orbem
Æquora verrebant caudis, æstumque secabant.
In medio classes æratas, Actia bella,
Cernere erat; totumque instructo Marte videres
Fervere Leucaten, auroque effulgere fluctus.
Hinc Augustus agens Italos in prœlia Cæsar
Cum patribus, populoque, penatibus et magnis dis,
Stans celsa in puppi: geminas cui tempora flammas
Læta vomunt, patriumque aperitur vertice sidus.
Parte alia ventis et dis Agrippa secundis
Arduus agmen agens: cui, belli insigne superbum,
Tempora navali fulgent rostrata corona.
Hinc ope barbarica variisque Antonius armis
Victor ab Auroræ populis et litore rubro
Ægyptum viresque Orientis et ultima secum
Bactra vehit; sequiturque, nefas! Ægyptia conjux.
Una omnes ruere, ac totum spumare, reductis
Convulsum remis rostrisque tridentibus, æquor.

Alta petunt: pelago credas innare revulsas
Cycladas, aut montes concurrere montibus altos:
Tanta mole viri turritis puppibus instant.
Stuppea flamma manu telisque volatile ferrum
Spargitur; arva nova Neptunia cæde rubescunt.
Regina in mediis patrio vocat agmina sistro;
Necdum etiam geminos a tergo respicit angues.

(B.) Horace.—Odes, Book IV.

Quid debeas, o Roma, Neronibus,
Testis Metaurum flumen et Hasdrubal
Devictus et pulcher fugatis
Ille dies Latio tenebris,
Qui primus alma risit adorea,
Dirus per urbes Afer ut Italas
Ceu flamma per tædas vel Eurus
Per Siculas equitavit undas.
Post hoc secundis usque laboribus
Romana pubes crevit et impio
Vastata Pœnorum tumultu
Fana Deos habuere rectos,
Dixitque tandem perfidus Hannibal:
Cervi, luporum præda rapacium,
Sectamur ultro, quos opimus
Fallere et effugere est triumphus.
Gens, quæ cremato fortis ab Ilio
Jactata Tuscis æquoribus, sacra,
Natosque maturosque patres
Pertulit Ausonias ad urbes,
Duris ut ilex tonsa bipennibus
Nigræ feraci frondis in Algido,
Per damna, per cædes ab ipso
Ducit opes animumque ferro.
Non Hydra secto corpore firmior
Vinci dolentem crevit in Herculem,
Monstrumve submisere Colchi
Majus Echioniæve Thebæ.
Merses profundo, pulchrior exiet;
Luctere, multa proruet integrum
Cum laude victorem geretque
Prœlia conjugibus loquenda.

(C.) Juvenal.—Sat. III.

Da testem Romæ tam sanctum, quam fuit hospes
Numinis Idæi: procedat vel Numa, vel qui
Servavit trepidam flagranti ex æde Minervam:
Protenus ad censum, de moribus ultima fiet
Quæstio. Quot pascit servos? quot possidet agri
Jugera? quam multa magnaque paropside cœnat?
Quantum quisque sua nummorum servat in arca,
Tantum habet et fidei. Jures licet et Samothracum
Et nostrorum aras; contemnere fulmina pauper
Creditur atque Deos, Dis ignoscentibus ipsis.
Quid, quod materiam præbet causasque jocorum
Omnibus hic idem, si fœda et scissa lacerna,
Si toga sordidula est, et rupta calceus alter
Pelle patet; vel si consuto vulnere crassum
Atque recens linum ostendit non una cicatrix?
Nil habet infelix paupertas durius in se,
Quam quod ridiculos homines facit. Exeat, inquit,
Si pudor est, et de pulvino surgat equestri,
Cujus res legi non sufficit, et sedeant hic
Lenonum pueri quocunque in fornice nati.
Hic plaudat nitidi præconis filius inter
Pinnirapi cultos juvenes, juvenesque lanistæ.
Sic libitum vano, qui nos distinxit, Othoni.
Quis gener hic placuit censu minor, atque puellæ
Sarcinulis impar? quis pauper scribitur heres?
Quando in consilio est Ædilibus? Agmine facto
Debuerant olim tenues migrasse Quirites.
Haud facile emergunt, quorum virtutibus obstat
Res angusta domi; sed Romæ durior illis

Conatus: magno hospitium miserabile, magno
Servorum ventres, et frugi cœnula magno.
Fictilibus cœnare pudet, quod turpe negavit
Translatus subito ad Marsos mensamque Sabellam;
Contentusque illic veneto duroque cucullo.

1. Write a short essay on the character of Virgil, as a poet.
2. Mention some of Bentley's emendations of Horace, and the arguments by which he supports them.
3. Quote Juvenal's lines on Revenge. Explain the words abacus, aliptes, schœnobates, stemma, epirhedium, naulum, siparium, triscurria, aluta.
4. When was Terence born? Who were his chief contemporaries? On what occasion was the Adelphi exhibited? Describe the principal metres used by Terence, and give examples.

9th October, 1852, 9 o'clock, a.m.

LATIN PROSE.—*Examiner, Bunnell Lewis, A.M.*

Translate :—

(A.) CICERO.—IN VERREM ACTIO SECUNDA, LIB. I.

Hic tu fortasse eris diligens, ne quam ego horam de meis legitimis horis remittam. Nisi omni tempore, quod mihi lege concessum est, abusus ero, querere: deûm atque hominum fidem implorabis: circumveniri C. Verrem, quod accusator nolit tamdiu, quamdiu liceat, dicere. Quod mihi lex mea causa det, eo mihi non uti non licebit? Nam accusandi mihi tempus mea causa datum est, ut possem oratione mea crimina causamque explicare. Hoc si non utor, non tibi injuriam facio, sed de meo jure aliquid et commodo detraho.—Causam enim, inquit, cognosci oportet.—Ea re quidem, quod aliter condemnari reus, quamvis sit nocens, non potest. Id igitur tu moleste tulisti, a me aliquid factum esse, quo minus iste condemnari posset? Nam causa cognita multi possunt absolvi: incognita quidem condemnari nemo potest. Adimo enim comperendinatum. Quod habet lex in se molestissimum, bis ut causa dicatur, [quod] aut mea causa potius est constitutum, quam tua, aut nihilo tua potius, quam mea. Nam si bis dicere est commodum, certe utriusque commune est. Si eum, qui posterius dixit, opus est redargui: accusatoris causa, ut bis ageretur, constitutum est. Verum, ut opinor. Glaucia primus tulit, ut comperendinaretur reus: antea vel judicari primo poterat, vel amplius pronuntiari. Utram igitur putas legem molliorem? Opinor illam veterem, qua vel cito absolvi, vel tarde condemnari licebat. Ego tibi illam Aciliam legem restituo, qua lege multi semel accusati, semel dicta causa, semel auditis testibus, condemnati sunt, nequaquam tam manifestis, neque tantis criminibus, quantis tu convinceris. Puta te non hac tam atroci, sed illa lege mitissima causam dicere. Accusabo: respondebis. Testibus editis, ita mittam in consilium, ut, etiam si lex ampliandi faciat potestatem, tamen isti turpe sibi existiment, non primo judicare.

(B.) LIVY.—BOOK XXII.

His senatus consultis perfectis L. Cornelius Lentulus pontifex maximus, consulente collegio prætorum, omnium primum populum consulendum de vere sacro censet: injussu populi voveri non posse. Rogatus in haec verba populus 'Velitis jubeatis hoc sic fieri: si res publica populi Romani Quiritium ad quinquennium proximum, sicut velim eam, salva servata erit hisce duellis, datum donum duit populus Romanus Quiritium (quod duellum populo Romano cum Carthaginiensi est, quæque duella cum Gallis sunt, quive cis Alpes sunt) quod ver attulerit ex suillo, ovillo, caprino, bovillo grege, quæque profana erunt, Jovi fieri ex qua die senatus populusque jusserit. Qui faciet, quando volet quaque lege volet, facito: quo modo faxit, probe factum esto. Si id moritur quod fieri oportebit, profanum esto, neque scelus esto. Si quis rumpet occidetve insciens, ne fraus esto. Si quis clepsit, ne populo scelus esto, neve cui cleptum erit. Si atro die faxit insciens, probe factum esto. Si nocte sive luce, si servus sive liber faxit, probe factum esto. Si antidea senatus populusque jusserit fieri ac faxit, eo populus solutus liber esto.' Ejusdem rei causa ludi magni voti æris trecentis triginta tribus milibus trecentis triginta tribus triente: præterea bubus Jovi trecentis, multis aliis divis bubus albis atque ceteris hostiis. Votis rite nuncupatis supplicatio edicta; supplicatumque iere cum conjugibus ac liberis non urbana multitudo tantum, sed agrestium etiam quos in aliqua sua fortuna publicæ quoque contingebat cura.

(C.) TACITUS.—ANNALS, BOOK I.

At theatri licentia, proximo priore anno cœpta, gravius tum erupit, occisis non modo e plebe sed militibus et centurione, vulnerato tribuno prætoriæ cohortis, dum probra in magistratus et dissensionem vulgi prohibent. Actum de ea seditione apud patres, dicebanturque sententiæ ut prætoribus jus virgarum in histriones esset. Intercessit Haterius Agrippa tribunus plebei, increpitusque est Asinii Galli oratione, silente Tiberio, qui ea simulacra libertatis senatui præbebat. Valuit tamen intercessio, quia divus Augustus immunes verberum histriones quondam responderat, neque fas Tiberio infringere dicta ejus. De modo lucaris et adversus lasciviam fautorum multa decernuntur; ex quis maxime insignia, ne domos pantomimorum senator introiret; ne egredientes in publicum equites Romani cingerent, aut alibi quam in theatro spectarentur; et spectantium immodestiam exilio multandi potestas prætoribus foret.

Templum ut in colonia Tarraconensi strueretur Augusto petentibus Hispanis permissum,

datumque in omnes provincias exemplum. Centesimam rerum venalium, post bella civilia institutam, deprecante populo, edixit Tiberius militare ærarium eo subsidio niti; simul imparem oneri rem publicam, nisi vicesimo militiæ anno veterani dimitterentur. Ita proximæ seditionis male consulta, quibus sedecim stipendiorum finem expresserant, abolita in posterum.

1. Write short accounts of the principal speakers in Cicero's Dialogues De Oratore. When was this work composed?

2. How does Cicero, in the Tusculan Disputations, translate into Latin the words βούλησις, ζηλοτυπία, θύμωσις, κακία, φιλογύνεια? What distinction does he make between invidia and invidentia?

3. Translate:—

Ita jussisti, opinor, ipsum in tabulas referre: Hæc omnia signa Praxitelis, Myronis, Polycleti, HS vi. mill. et IↃ Verri vendita svnt. Recita ex tabulis. Tabvlæ Heii. Juvat me, hæc præclara nomina artificum, quæ isti ad cælum ferunt, Verris æstimatione sic concidisse. Cupidinem Praxitelis HS CIↃIↃC. Profecto hinc natum est, *Malo emere, quam rogare.*

Express these sums in English money.

Describe the chief works of Polycletus, and quote some notices of his style by ancient authors.

4. Write explanatory notes on extract (B).

5. What is known of the life of Tacitus? What period did his Annals comprise? Narrate the events to which the words "proximæ seditionis" in (C) refer.

9th October, 1852, 2 *o'clock, p.m.*

Greek—*Examiner, Charles Mac Douall, A.M.*

I.—1. Translate Æschylus—Prometheus Vinctus, 801–818.

Τοιοῦτο μὲν σοι τοῦτο φρούριον λέγω.
ἄλλην δ' ἄκουσον δυσχερῆ θεωρίαν·
ὀξυστόμους γὰρ Ζηνὸς ἀκραγεῖς κύνας
γρῦπας φύλαξαι, τόν τε μουνῶπα στρατὸν
Ἀριμασπὸν ἱπποβάμον', οἳ χρυσόρρυτον
οἰκοῦσιν ἀμφὶ νᾶμα Πλούτωνος πόρου·
τούτοις σὺ μὴ πέλαζε. τηλουρὸν δὲ γῆν
ἥξεις, κελαινὸν φῦλον, οἳ πρὸς ἡλίου
ναίουσι πηγαῖς, ἔνθα ποταμὸς Αἰθίοψ.
τούτου παρ' ὄχθας ἕρπ', ἕως ἂν ἐξίκῃ
καταβασμόν. ἔνθα Βυβλίνων ὀρῶν ἄπο
ἵησι σεπτὸν Νεῖλος εὔποτον ῥέος.
οὗτός σ' ὁδώσει τὴν τρίγωνον ἐς χθόνα
Νειλῶτιν, οὗ δὴ τὴν μακρὰν ἀποικίαν,
Ἰοῖ, πέπρωται σοί τε καὶ τέκνοις κτίσαι.
τῶν δ' εἴ τί σοι ψελλόν τε καὶ δυσεύρετον,
ἐπαναδίπλαζε. καὶ σαφῶς ἐκμάνθανε·
σχολὴ δὲ πλείων ἢ θέλω πάρεστί μοι.

2. State—and elucidate fully—the derivation or composition of φρούριον,—τηλουρόν,—νᾶμα,—καταβασμὸν or καταβαθμον,—ἀκραγεῖς,—Αἰθίοψ, with the usage of which in this passage collate the Homeric Αἴγυπτος,—χρυσόρρυτον, with which, in reference to inceptive ρ, compare εὔρυτον, ἀγνύρυτον, &c.

3. (*a*) What view do you take of the geographical notices in the *Prometheus Vinctus?* (*b*) How has the line, ἥξεις δ' Ὑβριστὴν ποταμὸν οὐ ψευδώνυμον, been interpreted? And what hypothesis of certain ancient Philosophers, concerning the origin of proper names, has it been thought to illustrate?

4. What theory respecting the Titan-war, or world strife, does Æschylus seek to evolve? And how, in harmony with this, does he conceive the character of Prometheus, his destiny, and his relations to gods and men?

5. What association of ideas appears to have suggested the episode of Io's wanderings in this drama?

6. Is the early or late position of this play, relatively to the other relics of Æschylus' genius, determined—whether by the number of actors requisite for its representation, or in any other way?

7. What is known about the other two plays which entered into the Promethean trilogy, and the satyr-drama which was appended to it?

8. (*a*) What Sicilian words or forms have been pointed out in the *Prometheus Vinctus?* (*b*) How often, and under what circumstances, does the author appear to have visited Sicily?

II.—1. Translate Sophocles—Œdipus Coloneus, 668—718.

Εὐίππου, ξένε, τᾶσδε χώρας
ἵκου τὰ κράτιστα γᾶς ἔπαυλα,
τὸν ἀργῆτα Κολωνόν, ἔνθ'
ἁ λίγεια μινύρεται
θαμίζουσα μάλιστ' ἀηδὼν
χλωραῖς ὑπὸ βάσσαις,
τὸν οἰνωπ' ἀνέχουσα κισσὸν
καὶ τὰν ἄβατον θεοῦ
φυλλάδα μυριόκαρπον ἀνήλιον
ἀνήνεμόν τε πάντων
χειμώνων· ἵν' ὁ βακχιώτας
ἀεὶ Διόνυσος ἐμβατεύει
θεαῖς ἀμφιπολῶν τιθήναις.

θάλλει δ' οὐρανίας ὑπ' ἄχνας
ὁ καλλίβοτρυς κατ' ἦμαρ ἀεὶ
νάρκισσος, μεγάλαιν θεαῖν
ἀρχαῖον στεφάνωμ', ὅ τε
χρυσαυγὴς κρόκος· οὐδ' ἄϋπνοι
κρῆναι μινύθουσιν
Κηφισοῦ νομάδες ῥεέθρων,
ἀλλ' αἰὲν ἐπ' ἤματι
ὠκύτοκος πεδίων ἐπινίσσεται
ἀκηράτῳ ξὺν ὄμβρῳ
στερνούχου χθονός· οὐδὲ Μουσᾶν
χοροί νιν ἀπεστύγησαν, οὐδὲ
χρυσάνιος Ἀφροδίτα
ἔστιν δ' οἷον ἐγὼ γᾶς Ἀσίας οὐκ ἐπακούω,
οὐδ' ἐν τᾷ μεγάλᾳ Δωρίδι νάσῳ Πέλοπος πώποτε βλαστὸν
φύτευμ' ἀχείρωτον αὐτόποιον
ἐγχέων φόβημα δαΐων,
ὃ τᾷδε θάλλει μέγιστα χώρᾳ,
γλαυκᾶς παιδοτρόφου φύλλον ἐλαίας·
τὸ μέν τις οὔτε νεαρὸς οὔτε γήρᾳ
σημαίνων ἁλιώσει χερὶ πέρσας· ὁ γὰρ αἰὲν ὁρῶν κύκλος
λεύσσει νιν Μορίου Διὸς
χἀ γλαυκῶπις Ἀθάνα.
ἄλλον δ' αἶνον ἔχω ματροπόλει τᾷδε κράτιστον,
δῶρον τοῦ μεγάλου δαίμονος, εἰπεῖν, ... αὔχημα μέγιστον,
εὔιππον, εὔπωλον, εὐθάλασσον.
ὦ παῖ Κρόνου, σὺ γάρ νιν εἰς
τόδ' εἷσας αὔχημ', ἄναξ Ποσειδᾶν,
ἵπποισιν τὸν ἀκεστῆρα χαλινὸν
πρώταισι ταῖσδε κτίσας ἀγυιαῖς
ἁ δ' εὐήρετμος ἔκπαγλ' ἁλία χερσὶ παραπτομένα πλάτα
θρώσκει, τῶν ἑκατομπόδων
Νηρῄδων ἀκόλουθος.

2. (*a*) Translate the statement of Plutarch: Σοφοκλῆς δὲ λέγεται μὲν ὑπὸ τῶν υἱῶν παρανοίας δίκην φεύγων ἀναγνῶναι τὴν ἐν Οἰδίποδι τῷ ἐπὶ Κολωνοῦ πάροδον, ἧ ἐστιν ἀρχή, "εὐίππου, ξένε, τᾶσδε" κ.τ.λ. (*b*) State fully the circumstances of the case, as mentioned by other ancient authors, and briefly discuss the question of its probability. (*c*) Refer to any passages in the play itself which either allude to those circumstances or are in close keeping with them.

3. (*a*) Date the first representation of the play, by the Olympic reckoning, and also by the year B.C. (*b*) Date both the birth and the death of Sophocles. (*c*) Name his extant tragedies in chronological order, and state whether any of them should be grouped together as portions of one trilogy.

4. Explain what is meant by πάροδος, ἔξοδος, ἐπεισόδια; also by στάσιμα μέλη, κομμοί, τὰ ἀπὸ σκηνῆς; and by λόγος, διάλογος, πρόλογος, ἐπίλογος.

5. (*a*) What associations, personal as well as mythical, induced the poet to glorify, in this drama, the region of Κολωνὸς Ἵππιος? (*b*) What natural objects and works of art, within its precinct or seen from it, does he allude to, as represented in the decorations of the stage or its background? (*c*) Where was Κολωνὸς Ἀγοραῖος?

6. (*a*) How many actors must—and how many may—have been employed in this drama? (*b*) Can you assign their several parts in it to the protagonist,—the deuteragonist,—the tritagonist? (*c*) Name any eminent performers of whose histrionic powers Sophocles sometimes availed himself.

7. Name the forms of versification exemplified in (*a*) lines 667, 669, 670, 671, 673, 674, 677;—(*b*) 668, 678;—(*c*) 672;—(*d*) 679;—(*e*) 675;—(*f*) 676.

8. (*a*) Account for the admission of Doric forms in the lyrical portions of Attic tragedy;—(*b*) classify such as are actually found there;—(*c*) give examples of various classes from the ode here extracted.

9. Subjoin brief notes on the ode, elucidating either the import and etymology of words occurring in it,—or peculiarities of syntax, prosody, or metre,—or points of history, geography, mythology, or archæology,—or poetical sentiments and figures of speech.

III.—1. Translate EURIPIDES—MEDEA, 184–203.

Δράσω τάδ'· ἀτὰρ φόβος εἰ πείσω
δέσποιναν ἐμάν·
μόχθου δὲ χάριν τήνδ' ἐπιδώσω.
καίτοι τοκάδος δέργμα λεαίνης
ἀποταυροῦται δμωσίν, ὅταν τις
μῦθον προφέρων πέλας ὁρμαθῇ.
σκαιοὺς δὲ λέγων κοὐδέν τι σοφοὺς
τοὺς πρόσθε βροτοὺς οὐκ ἂν ἁμάρτοις,
οἵτινες ὕμνους ἐπὶ μὲν θαλίαις
ἐπί τ' εἰλαπίναις καὶ παρὰ δείπνοις
εὕροντο, βίου τερπνὰς ἀκοάς·
στυγίους δὲ βροτῶν οὐδεὶς λύπας
εὕρετο μούσῃ καὶ πολυχόρδοις
ᾠδαῖς παύειν, ἐξ ὧν θάνατοι
δειναί τε τύχαι σφάλλουσι δόμους.
καίτοι τάδε μὲν κέρδος ἀκεῖσθαι
μολπαῖσι βροτούς· ἵνα δ' εὐδειπνοι
δαῖτες, τί μάτην τείνουσι βοάν;
τὸ παρὸν γὰρ ἔχει τέρψιν ἀφ' αὑτοῦ
  δαιτὸς πλήρωμα βροτοῖσιν.

(*a*) State the laws of the metre here exemplified,—in reference to the second and the ultimate lines as well as the others,—defining the terms συνάφεια, σύστημα, βάσις, στίχος παροιμιακός.

(*b*) Make any remark suggested by either the sense or the phraseology of this passage.

2. Translate EURIPIDES—ALCESTIS, 435–463.

Ὦ Πελίου θύγατερ,
χαίρουσά μοι εἰν Ἀΐδα δόμοισιν
τὸν ἀνάλιον οἶκον οἰκετεύοις.
ἴστω δ' Ἀΐδης ὁ μελαγχαίτας
θεὸς ὅς τ' ἐπὶ κώπᾳ
πηδαλίῳ τε γέρων
νεκροπομπὸς ἵζει,
πολὺ δὴ πολὺ δὴ γυναῖκ' ἀρίσταν
λίμναν Ἀχεροντίαν
πορεύσας ἐλάτᾳ δικώπῳ.
πολλά σε μουσοπόλοι
μέλψουσι καθ' ἑπτάτονόν τ' ὀρείαν
χέλυν ἔν τ' ἀλύροις κλέοντες ὕμνοις,
Σπάρτᾳ, κύκλος ἁνίκα Καρνείου
περινίσσεται ὥρα
μηνὸς ἀειρομένας
παννύχου σελάνας,
λιπαραῖσί τ' ἐν ὀλβίαις Ἀθάναις.
τοίαν ἔλιπες θανοῦ-
σα μολπὰν μελέων ἀοιδοῖς.
εἴθ' ἐπ' ἐμοὶ μὲν εἴη,
δυναίμαν δέ σε πέμψαι
φάος ἐξ Ἀΐδα τεράμνων
Κωκυτοῦ ῥεέθρων
ποταμίᾳ νερτέρᾳ τε κώπᾳ.
σὺ γάρ, ὦ μόνα, ὦ φίλα γυναικῶν,
σὺ τὸν αὑτᾶς ἔτλας
πόσιν ἀντὶ σᾶς ἀμεῖψαι
ψυχᾶς ἐξ Ἅιδα.

a. Translate also. vv. 448–451, according to the conjectural reading κυκλὰς . . . . ὥρα; and explain Καρνείου μηνός.

b. To what styles (or "dialects") belong the distinct forms Ἀΐδα and Ἅιδα? And what style is exemplified by εἰν, κλέιοντες, λιπαραῖσι, μελέων, ῥεέθρων?

c. Explain the construction or usage of μοι, vs. 436,—πορεύσας, vs. 444,—θανοῦσα, vs. 453, —φάος, vs. 457,—φίλα γυναικῶν, vs. 460,—αὑτᾶς, vs. 461; and notice any instances either of ellipsis, or of transition from one construction to another in co-ordinate clauses.

3. Translate EURIPIDES—ORESTES, 34–52.

Ἐντεῦθεν ἀγρίᾳ ξυντακεὶς νόσῳ νοσεῖ
τλήμων Ὀρέστης· ὁ δὲ πεσὼν ἐν δεμνίοις
κεῖται, τὸ μητρὸς δ' αἷμά νιν τροχηλατεῖ
μανίαισιν· ὀνομάζειν γὰρ αἰδοῦμαι θεὰς
Εὐμενίδας, αἳ τόνδ' ἐξαμιλλῶνται φόβῳ.
ἕκτον δὲ δὴ τόδ' ἦμαρ ἐξ ὅτου σφαγαῖς
θανοῦσα μήτηρ πυρὶ καθήγνισται δέμας,
ὧν οὔτε σῖτα διὰ δέρης ἐδέξατο,
οὐ λούτρ' ἔδωκε χρωτί· χλανιδίων δ' ἔσω
κρυφθείς, ὅταν μὲν σῶμα κουφισθῇ νόσου,
ἔμφρων δακρύει, ποτὲ δὲ δεμνίων ἄπο
πηδᾷ δρομαῖος, πῶλος ὡς ἀπὸ ζυγοῦ.
ἔδοξε δ' Ἄργει τῷδε μήθ' ἡμᾶς στέγαις,
μὴ πυρὶ δέχεσθαι, μήτε προσφωνεῖν τινα
μητροκτονοῦντας· κυρία δ' ἥδ' ἡμέρα,
ἐν ᾗ διοίσει ψῆφον Ἀργείων πόλις,
εἰ χρὴ θανεῖν νὼ λευσίμῳ πετρώματι,
ἢ φάσγανον θήξαντ' ἐπ' αὐχένος βαλεῖν.
ἐλπίδα δὲ δή τιν' ἔχομεν ὥστε μὴ θανεῖν.

a. (α) State in what places of an iambic line "resolved feet" are admitted by the tragedians, and what restrictions are put upon their "concurrence." (β) How has vs. 499, as it stood in the old editions,

αὐτὸς κακίων ἐγένετο μητέρα κτανών,

been corrected? (γ) What do you remark upon vs. 20, as edited formerly—

Μενέλεως Ἑλένην' ὁ δὲ Κλυταιμνήστρας λέχος—

and as it stands now— Μενέλαος Ἑλένην' ὁ δὲ Κλυταιμνήστρας λέχος?

b. (α) What is noticeable in the line—

τυφῶς ἀείρας σκηπτόν, οὐράνιον ἄχος?

(β) In what circumstances, different from those of vs. 37 (printed above), may the first foot be an anapæst? (γ) When the third foot is a dactyl or a tribrach, as in vv. 39, 40, what cæsura is almost always found? How has vs. 444,—

κύκλῳ γὰρ εἰλισσόμεθα παγχάλκοις ὅπλοις,—

been emended?

c. State the restrictions upon the use of the final cretic, noticing ἐν δεμνίοις, in vs. 35.

d. What remark, upon the formation of compound verbs, is suggested by τροχηλατεῖ and μητροκτονοῦντας?

e. What is censurable in the prologue from which these lines are extracted, as well as in most of the prologues of Euripides?

f. In what respects have ancient as well as modern critics considered this drama reprehensible?

g. State briefly in what respects the dramaturgy of Euripides deviates,—for better or for worse,—from the style and practice of his predecessors.

11*th October*, 1852, 9 *o'clock, a.m.*

GREEK.—*Examiner, Charles Mac Douall, A.M.*

I.—1. Translate (*a*) ILIAD. 22, 145-161.

Οἱ δὲ παρὰ σκοπιὴν καὶ ἐρινεὸν ἠνεμόεντα
τείχεος αἰὲν ὑπὲκ κατ' ἀμαξιτὸν ἐσσεύοντο,
κρουνὼ δ' ἵκανον καλλιρρόω, ἔνθα τε πηγαὶ
δοιαὶ ἀναΐσσουσι Σκαμάνδρου δινήεντος.
ἡ μὲν γάρ θ' ὕδατι λιαρῷ ῥέει, ἀμφὶ δὲ καπνὸς
γίγνεται ἐξ αὐτῆς, ὡς εἰ πυρὸς αἰθομένοιο·
ἡ δ' ἑτέρη θέρεϊ προρέει εἰκυῖα χαλάζῃ
ἢ χιόνι ψυχρῇ ἢ ἐξ ὕδατος κρυστάλλῳ.
ἔνθα δ' ἐπ' αὐτάων πλυνοὶ εὐρέες ἐγγὺς ἔασιν
καλοὶ, λαΐνεοι, ὅθι εἵματα σιγαλόεντα
πλύνεσκον Τρώων ἄλοχοι καλαί τε θύγατρες
τὸ πρὶν ἐπ' εἰρήνης, πρὶν ἐλθεῖν υἷας Ἀχαιῶν.
τῇ ῥα παραδραμέτην, φεύγων, ὁ δ' ὄπισθε διώκων·
πρόσθε μὲν ἐσθλὸς ἔφευγε, δίωκε δέ μιν μέγ' ἀμείνων
καρπαλίμως, ἐπεὶ οὐχ ἱερήϊον οὐδὲ βοείην
ἀρνύσθην, ἅ τε ποσσὶν ἀέθλια γίγνεται ἀνδρῶν,
ἀλλὰ περὶ ψυχῆς θέον Ἕκτορος ἱπποδάμοιο.

(*b*) 24, 80-86.

Ἡ δὲ μολυβδαίνῃ ἰκέλη ἐς βυσσὸν ὄρουσεν,
ἥ τε κατ' ἀγραύλοιο βοὸς κέρας ἐμβεβαυῖα
ἔρχεται ὠμηστῇσιν ἐπ' ἰχθύσι κῆρα φέρουσα.
εὗρε δ' ἐνὶ σπῆϊ γλαφυρῷ Θέτιν, ἀμφὶ δέ τ' ἄλλαι
εἵαθ' ὁμηγερέες ἅλιαι θεαί· ἡ δ' ἐνὶ μέσσῃς
κλαῖε μόρον οὗ παιδὸς ἀμύμονος, ὅς οἱ ἔμελλεν
φθίσεσθ' ἐν Τροίῃ ἐριβώλακι, τηλόθι πάτρης.

(*c*) 24, 605-617.

Τοὺς μὲν Ἀπόλλων πέφνεν ἀπ' ἀργυρέοιο βιοῖο
χωόμενος Νιόβῃ, τὰς δ' Ἄρτεμις ἰοχέαιρα,
οὕνεκ' ἄρα Λητοῖ ἰσάσκετο καλλιπαρῄῳ·
φῆ δοιὼ τεκέειν, ἡ δ' αὐτὴ γείνατο πολλούς·
τὼ δ' ἄρα, καὶ δοιώ περ ἐόντ', ἀπὸ πάντας ὄλεσσαν.
οἱ μὲν ἄρ' ἐννῆμαρ κέατ' ἐν φόνῳ, οὐδέ τις ἦεν
κατθάψαι, λαοὺς δὲ λίθους ποίησε Κρονίων·
τοὺς δ' ἄρα τῇ δεκάτῃ θάψαν θεοὶ Οὐρανίωνες.
ἡ δ' ἄρα σίτου μνήσατ', ἐπεὶ κάμε δακρυχέουσα.
νῦν δέ που ἐν πέτρῃσιν, ἐν οὔρεσιν οἰοπόλοισιν,
ἐν Σιπύλῳ, ὅθι φασὶ θεάων ἔμμεναι εὐνὰς
νυμφάων, αἵ τ' ἀμφ' Ἀχελώϊον ἐρρώσαντο,
ἔνθα λίθος περ ἐοῦσα θεῶν ἐκ κήδεα πέσσει.

(*d*) ODYS. 13, 237-249.

Νήπιός εἰς, ὦ ξεῖν', ἢ τηλόθεν εἰλήλουθας,
εἰ δὴ τήνδε γε γαῖαν ἀνείρεαι· οὐδέ τι λίην
οὕτω νώνυμός ἐστιν· ἴσασι δέ μιν μάλα πολλοί,
ἠμὲν ὅσοι ναίουσι πρὸς ἠῶ τ' ἠέλιόν τε,
ἠδ' ὅσσοι μετόπισθε ποτὶ ζόφον ἠερόεντα.
ἤτοι μὲν τρηχεῖα καὶ οὐχ ἱππήλατός ἐστιν,
οὐδὲ λίην λυπρή, ἀτὰρ οὐδ' εὐρεῖα τέτυκται.
ἐν μὲν γάρ οἱ σῖτος ἀθέσφατος, ἐν δέ τε οἶνος
γίγνεται· αἰεὶ δ' ὄμβρος ἔχει τεθαλυῖά τ' ἐέρση.
αἰγίβοτος δ' ἀγαθὴ καὶ βούβοτος· ἔστι μὲν ὕλη
παντοίη, ἐν δ' ἀρδμοὶ ἐπηετανοὶ παρέασιν.
τῷ τοι, ξεῖν', Ἰθάκης γε καὶ ἐς Τροίην ὄνομ' ἵκει,
τήν περ τηλοῦ φασιν Ἀχαιΐδος ἔμμεναι αἴης.

(*e*) 14, 21-38.

Πὰρ δὲ κύνες θήρεσσιν ἐοικότες αἰὲν ἴαυον
τέσσαρες, οὓς ἔθρεψε συβώτης, ὄρχαμος ἀνδρῶν.
αὐτὸς δ' ἀμφὶ πόδεσσιν ἑοῖς ἀράρισκε πέδιλα,
τάμνων δέρμα βόειον, ἐϋχροές. οἱ δὲ δὴ ἄλλοι
ᾤχοντ' ἄλλυδις ἄλλος ἅμ' ἀγρομένοισι σύεσσιν,
οἱ τρεῖς· τὸν δὲ τέταρτον ἀποπροέηκε πόλινδε
σῦν ἀγέμεν μνηστῆρσιν ὑπερφιάλοισιν ἀνάγκῃ,
ὄφρ' ἱερεύσαντες κρειῶν κορεσαίατο θυμόν.
Ἐξαπίνης δ' Ὀδυσῆα ἴδον κύνες ὑλακόμωροι.
οἱ μὲν κεκλήγοντες ἐπέδραμον· αὐτὰρ Ὀδυσσεὺς
ἕζετο κερδοσύνῃ, σκῆπτρον δέ οἱ ἔκπεσε χειρός.
ἔνθα κεν ᾧ πὰρ σταθμῷ ἀεικέλιον πάθεν ἄλγος·
ἀλλὰ συβώτης ὦκα ποσὶ κραιπνοῖσι μετασπὼν
ἔσσυτ' ἀνὰ πρόθυρον, σκῦτος δέ οἱ ἔκπεσε χειρός.
τοὺς μὲν ὁμοκλήσας σεῦεν κύνας ἄλλυδις ἄλλον
πυκνῇσιν λιθάδεσσιν· ὁ δὲ προσέειπεν ἄνακτα·
Ὦ γέρον, ἦ ὀλίγου σε κύνες διεδηλήσαντο
ἐξαπίνης, καί κέν μοι ἐλεγχείην κατέχευας.

2. Sketch the topography of the Troian champaign, locating the objects mentioned in the first extract.

3. What data does the *Odysseia* afford for locating the isle described in the fourth extract? Show whether they correspond or not with the characteristics of the modern Teaki.

4. Notice the ordinary rules of prosody, including the use of *hiatus* and *ictus metricus*, as exemplified in the above extracts. (*b*) Wherever the metre requires any letters (such as ϝ, ν, σ, &c.,) to be either inserted or omitted, restore such archaic forms of words as are justified by analogy and tradition.

5. Illustrate, from the above extracts, some characteristics of Homeric phraseology; as the use of pronouns, articles, prepositions, conjunctions, &c., &c.

6. Express in Attic prose the sense conveyed in (*a*) *Iliad*. 22, 157-8; and (*b*) *Iliad*, 24, 608—which you may try if you can amend without injury to the verse. (*c*) Punctuate, in

two distinct ways, *Iliad.* 24, 617. (*d*) What characteristic of Homeric style is illustrated by the mode in which the three lines, *Odys.* 14, 26–28, are attached to those preceding?

7. Give derivations—which you may defend and illustrate in any case of doubt—for λιθάδεσσιν, σκῆπτρον, συβώτης (adduce a Homeric synonyme, in which the first element is ὑ- instead of συ-), πλυνοί, ἀρδμοί, ὄρχαμος, ὄμβρος, ἔερση, κρυστάλλῳ, ὠμηστῇσιν, ἁμαξιτόν, ἐρινεόν, κῆρα (distinguish κῆρ), βοείην, ἱερήιον—tracing the shades of meaning assumed by the two last;—γλαφυρῷ, λιαρῷ, ἀγραύλοιο, λαΐνεοι, ἰκέλη, ἀεικέλιον, ἀμύμονος, οἰοπόλοισιν, ἰοχέαιρα, σιγαλόεντα, νήπιος (notice its lengthened forms), ἅλιαι (both the word used here and another), νώνυμος (notice νώνυμνος among other forms), ἀθέσφατος (discuss this fully), ἐπηετανοί, εὔχροές, ὑπερφιάλοισιν, ὑλακόμωροι (also ἰόμωροι, ἐγχεσίμωροι, &c.), ἀεικέλιον, κραιπνοῖσι, πυκνῇσιν;—ἄλλυδις, ἐξαπίνης, καρπαλίμως, λίην (mark the quantity of ι), and ἄρα—two shorter forms of which you will give, and from which—as from each other—you will distinguish ἆρα an Attic particle, and ἀρά a noun, in accent, quantity, and import.

8. Parse fully ἀγέμεν and ἔμμεναι;—εἰκυῖα, ἐμβεβαυῖα, τεθαλυῖα,—χωόμενος, ἀγρομένοισι, κεκλήγοντες, μετασπών, τάμνων, ὁμοκλήσας, δακρυχέουσα (if you prefer δάκρυ χέουσα separately, say why);—πέφνε, θέον (distinguish θεόν), κάμε, ἔθρεψε, ἀράρισκε, πλύνεσκον, ἰσάσκετο, ἀποπροέηκε, ἔσσυτο, κέατο, εἵατο, τέτυκται, γείνατο, κορεσαίατο, μνήσατο, ἐῤῥώσαντο, ἀρνύσθην, ἀνείρεαι.

II.—Translate in Homeric Hexameters,

Not that fair field
Of Enna, where Proserpine gathering flowers,
Herself a fairer flower, by gloomy Dis
Was gather'd, which cost Ceres all that pain
To seek her through the world; nor that sweet grove
Of Daphne by Orontes and the inspired
Castalian spring, might with this Paradise
Of Eden strive; nor that Nyseian isle
Girt with the river Triton, where old Cham,
Whom Gentiles Ammon call and Lybian Jove,
Hid Amalthea, and her florid son
Young Bacchus, from his stepdame Rhea's eye;
Nor where Abassin kings their issue guard,
Mount Amara, though this by some supposed
True Paradise under the Ethiop line
By Nilus' head, enclosed with shining rock,
A whole day's journey high.

Or in the Trimeter Iambics of Tragedy,

Behold
Where on the Ægean shore a city stands,
Built nobly; pure the air. and light the soil;
Athens, the eye of Greece, mother of arts
And eloquence; native to famous wits
Or hospitable; in her sweet recess,
City or suburban, studious walks and shades.
See there the olive grove of Academe,
Plato's retirement, where the Attic bird
Trills her thick-warbled notes the summer long;
There flowery hill Hymettus, with the sound
Of bees' industrious murmur, oft invites
To studious musing; there Ilissus rolls
His whispering stream: within the walls then view
The schools of ancient sages; his, who bred
Great Alexander to subdue the world,
Lyceum there, and painted Stoa next.

11th October, 1852, 2 *o'clock, p.m.*

GREEK.—*Examiner, Charles Mac Douall, A.M.*

I.—1. Translate HEROD. I, 24.

Τοῦτον τὸν Ἀρίονα λέγουσι, τὸν πολλὸν τοῦ χρόνου διατρίβοντα παρὰ Περιάνδρῳ, ἐπιθυμῆσαι πλῶσαι ἐς Ἰταλίην τε καὶ Σικελίην· ἐργασάμενον δὲ χρήματα μεγάλα, θελῆσαι ὀπίσω ἐς Κόρινθον ἀπικέσθαι. ὁρμᾶσθαι μέν νυν ἐκ Τάραντος, πιστεύοντα δὲ οὐδαμοῖσι μᾶλλον ἢ Κορινθίοισι μισθώσασθαι πλοῖον ἀνδρῶν Κορινθίων. τοὺς δὲ ἐν τῷ πελάγεϊ ἐπιβουλεύειν, τὸν Ἀρίονα ἐκβαλόντας, ἔχειν τὰ χρήματα· τὸν δὲ, συνέντα τοῦτο, λίσσεσθαι, χρήματα μέν σφι προϊέντα, ψυχὴν δὲ παραιτεόμενον. οὔκων δὴ πείθειν αὐτὸν τούτοισι· ἀλλὰ κελεύειν τοὺς πορθμέας ἢ αὐτὸν διαχρᾶσθαί μιν, ὡς ἂν ταφῆς ἐν γῇ τύχῃ, ἢ ἐκπηδᾶν ἐς τὴν θάλασσαν τὴν ταχίστην. ἀπειληθέντα δὲ τὸν Ἀρίονα ἐς ἀπορίην παραιτήσασθαι, ἐπειδή σφι οὕτω δοκέοι, περιιδεῖν αὐτὸν ἐν τῇ σκευῇ πάσῃ στάντα ἐν τοῖσι ἑδωλίοισι ἀεῖσαι· ἀείσας δὲ ὑπεδέκετο ἑωυτὸν κατεργάσασθαι. καὶ τοῖσι ἐσελθεῖν γὰρ ἡδονήν, εἰ μέλλοιεν ἀκούσεσθαι τοῦ ἀρίστου ἀνθρώπων ἀοιδοῦ, ἀναχωρῆσαι ἐκ τῆς πρύμνης ἐς μέσην νέα. τὸν δὲ, ἐνδύντα τε πᾶσαν τὴν σκευὴν καὶ λαβόντα τὴν κιθάρην, στάντα ἐν τοῖσι ἑδωλίοισι, διεξελθεῖν νόμον τὸν ὄρθιον· τελευτῶντος δὲ τοῦ νόμου, ῥῖψαί μιν ἐς τὴν θάλασσαν ἑωυτὸν, ὡς εἶχε, σὺν τῇ σκευῇ πάσῃ. καὶ τοὺς μὲν ἀποπλέειν ἐς Κόρινθον· τὸν δὲ δελφῖνα λέγουσι ὑπολαβόντα ἐξενεῖκαι ἐπὶ Ταίναρον. ἀποβάντα δὲ αὐτὸν χωρέειν ἐς Κόρινθον σὺν τῇ σκευῇ, καὶ ἀπικόμενον ἀπηγέεσθαι πᾶν τὸ γεγονός. Περίανδρον δὲ ὑπὸ ἀπιστίης Ἀρίονα μὲν ἐν φυλακῇ ἔχειν, οὐδαμῇ μετιέντα, ἀνακῶς δὲ ἔχειν τῶν πορθμέων· ὡς δὲ ἄρα παρεῖναι αὐτούς, κληθέντας ἱστορέεσθαι εἴ τι λέγοιεν περὶ Ἀρίονος. φαμένων δὲ ἐκείνων ὡς εἴη τε σῶς περὶ Ἰταλίην, καί μιν εὖ πρήσσοντα λίποιεν ἐν Τάραντι, ἐπιφανῆναί σφι τὸν Ἀρίονα, ὥσπερ ἔχων ἐξεπήδησε· καὶ τοὺς ἐκπλαγέντας, οὐκ ἔχειν ἔτι ἐλεγχομένους ἀρνέεσθαι.

2. Write out the whole passage in the Attic dialect and the style of Xenophon;—not only eliminating every Ionic word and form, but likewise altering any case, tense, or mode, where another seems more consonant with Attic idiom, and varying even the structure of clauses, so as to express cause, condition, design, consequence, and other relations, in the way you think best;—never, however, taking such a liberty capriciously;—and vindicating your course, if requisite, in brief notes, which you may subjoin.

3. (*a*) State the chief characteristics of the *oratio obliqua*, or reported narrative in Greek, noting its coincidences with—and variations from—the Latin idiom—and specifying any constructions in the above passage which are exceptional or rare in either language. (*b*) Translate, in good Latin, from ἀπειληθέντα δὲ τὸν Ἀρίονα to ἐκ τῆς πρύμνης ἐς μέσην νέα.

4. (*a*) Define, and explain clearly, such transitions, affecting the state of infinitives and participles, as are exemplified in ὁρμᾶσθαι μέν, μισθώσασθαι δέ,—τοὺς μὲν ἀποπλέειν, τὸν δὲ ἐξενεῖκαι,—συνέντα τοῦτο λίσσεσθαι, προϊέντα μέν, παραιτεόμενον δέ,—and in other instances throughout. (*b*) Mention wherein, if at all, the Herodotean usage of aorist and imperfect tense-forms differs from the Homeric on the one hand, and the Attic on the other.

5. Parse fully τύχῃ, λίποιεν, ἀπικέσθαι, ἀεῖσαι, ῥίψαι (distinguish from this ῥῖψαι), ἐξενεῖκαι, ἱστορέεσθαι, ἐπιφανῆναι, ἐνδύντα, ἀπειληθέντα, ἀποβάντα, μετιέντα, φαμένων, ἐκπλαγέντας, ἐλεγχομένους, giving the principal tense-forms of each verb which are actually in use.

6. Derive οὐδαμοῖσι, πορθμέας, ἑδωλίοισι, πρύμνης, ὄρθιον, ἀνακῶς; showing the formation of each word to be supported by analogy, and adducing cognates of each, with their meanings.

II.—1. Translate THUCYD. I, 122.

Ὑπάρχουσι δὲ καὶ ἄλλαι ὁδοὶ πολέμου ἡμῖν, ξυμμάχων τε ἀπόστασις, μάλιστα παραίρεσις οὖσα τῶν προσόδων αἷς ἰσχύουσι, καὶ ἐπιτειχισμὸς τῇ χώρᾳ, ἄλλα τε ὅσα οὐκ ἄν τις νῦν προΐδοι. ἥκιστα γὰρ πόλεμος ἐπὶ ῥητοῖς χωρεῖ, αὐτὸς δὲ ἀφ' αὑτοῦ τὰ πολλὰ τεχνᾶται πρὸς τὸ παρατυγχάνον. ἐν ᾧ ὁ μὲν εὐοργήτως αὐτῷ προσομιλήσας βεβαιότερος, ὁ δὲ ὀργισθεὶς περὶ αὐτὸν οὐκ ἐλάσσω πταίει. ἐνθυμώμεθα δὲ καὶ ὅτι, εἰ μὲν ἦσαν ἡμῶν ἑκάστοις πρὸς ἀντιπάλους περὶ γῆς ὅρων διαφοραί, οἰστὸν ἂν ἦν· νῦν δὲ πρὸς ξύμπαντάς τε ἡμᾶς Ἀθηναῖοι ἱκανοὶ καὶ κατὰ πόλιν ἔτι δυνατώτεροι· ὥστε, εἰ μὴ καὶ ἁθρόοι καὶ κατὰ ἔθνη καὶ ἕκαστον ἄστυ μιᾷ γνώμῃ ἀμυνούμεθα αὐτούς, δίχα γε ὄντας ἡμᾶς ἀπόνως χειρώσονται. καὶ τὴν ἧσσαν, εἰ καὶ δεινόν τῳ ἀκοῦσαι, ἴστω οὐκ ἄλλο τι φέρουσαν ἢ ἄντικρυς δουλείαν· ὃ καὶ λόγῳ ἐνδοιασθῆναι αἰσχρὸν τῇ Πελοποννήσῳ καὶ πόλεις τοσάσδε ὑπὸ μιᾶς κακοπαθεῖν. ἐν ᾧ ἡ δικαιως δοκοιμεν ἂν πασχειν ἢ δια δειλιαν ἀνεχεσθαι και των πατερων χειρους φαινεσθαι οἱ την Ἑλλαδα ἠλευθερωσαν· ἡμεις δε οὐδ' ἡμιν αὐτοις βεβαιουμεν αὐτο, τυραννον δε ἐωμεν ἐγκαθεσταναι πολιν, τους δ' ἐν μιᾳ μοναρχους ἀξιουμεν καταλυειν. και οὐκ ἰσμεν ὁπως ταδε τριων των μεγιστων ξυμφορων ἀπηλλακται, ἀξυνεσιας ἢ μαλακιας ἢ ἀμελειας. οὐ γαρ δη πεφευγοτες ταυτα ἐπι την πλειστους δη βλαψασαν καταφρονησιν κεχωρηκατε, ἡ ἐκ του πολλους σφαλλειν το ἐναντιον ὀνομα ἀφροσυνη μετωνομασται.

2. (*a*) Point out—and illustrate—any syntactical peculiarities in the foregoing passage;—(*b*) mention any others familiar to Thucydides, though not exemplified above;—(*c*) characterize his style, whether in the narrative itself, or in the speeches attributed to ambassadors and other historical personages.

3. Accentuate from ἐν ᾧ ἡ δικαιως to μετωνομασται.

III.—1. Translate these extracts from PLATO, CRITO, cc. 14, 15.

Οὐ γὰρ ἄν ποτε τῶν ἄλλων Ἀθηναίων ἁπάντων διαφερόντως ἐν αὐτῇ [τῇ πόλει] ἐπεδήμεις, εἰ μή σοι διαφερόντως ἤρεσκε, καὶ οὔτ' ἐπὶ θεωρίαν πώποτε ἐκ τῆς πόλεως ἐξῆλθες, ὅτι μὴ ἅπαξ εἰς Ἰσθμόν, οὔτε ἄλλοσε οὐδαμόσε, εἰ μή ποι στρατευσόμενος, οὔτε ἄλλην ἀποδημίαν ἐποιήσω πώποτε, ὥσπερ οἱ ἄλλοι ἄνθρωποι, οὐδ' ἐπιθυμία σε ἄλλης πόλεως οὐδ' ἄλλων νόμων ἔλαβεν εἰδέναι, ἀλλὰ ἡμεῖς σοι ἱκανοὶ ἦμεν καὶ ἡ ἡμετέρα πόλις· οὕτω σφόδρα ἡμᾶς ᾑροῦ, καὶ ὡμολόγεις καθ' ἡμᾶς πολιτεύεσθαι τά τε ἄλλα καὶ παῖδας ἐν αὐτῇ ἐποιήσω, ὡς ἀρεσκούσης σοι τῆς πόλεως· ἔτι τοίνυν ἐν αὐτῇ τῇ δίκῃ ἐξῆν σοι φυγῆς τιμήσασθαι, εἰ ἐβούλου, καί, ὅπερ νῦν ἀκούσης τῆς πόλεως ἐπιχειρεῖς, τότε ἑκούσης ποιῆσαι. σὺ δὲ τότε μὲν ἐκαλλωπίζου ὡς οὐκ ἀγανακτῶν, εἰ δέοι τεθνάναι σε, ἀλλ' ᾑροῦ, ὡς ἔφησθα, πρὸ τῆς φυγῆς θάνατον· νῦν δὲ οὔτ' ἐκείνους τοὺς λόγους αἰσχύνει, οὔτε ἡμῶν τῶν νόμων ἐντρέπει, ἐπιχειρῶν διαφθεῖραι, πράττεις τε ἅπερ ἂν δοῦλος φαυλότατος πράξειεν, ἀποδιδράσκειν ἐπιχειρῶν παρὰ τὰς ξυνθήκας τε καὶ τὰς ὁμολογίας, καθ' ἃς ἡμῖν ξυνέθου πολιτεύεσθαι . . . . . καὶ ὅσοιπερ κήδονται τῶν αὑτῶν πόλεων, ὑποβλέψονταί σε διαφθορέα ἡγούμενοι τῶν νόμων, καὶ βεβαιώσεις τοῖς δικασταῖς τὴν δόξαν, ὥστε δοκεῖν ὀρθῶς τὴν δίκην δικάσαι· ὅστις γὰρ νόμων διαφθορεύς ἐστι, σφόδρα που δόξειεν ἂν νέων γε καὶ ἀνοήτων ἀνθρώπων διαφθορεὺς εἶναι. πότερον οὖν φεύξει τάς τε εὐνομουμένας πόλεις καὶ τῶν ἀνδρῶν τοὺς κοσμιωτάτους; καὶ τοῦτο ποιοῦντι ἆρα ἄξιόν σοι ζῆν ἔσται; ἢ πλησιάσεις τούτοις καὶ ἀναισχυντήσεις διαλεγόμενος—τίνας λόγους, ὦ Σώκρατες; ἢ οὕσπερ ἐνθάδε, ὡς ἡ ἀρετὴ καὶ ἡ δικαιοσύνη πλείστου ἄξιον τοῖς ἀνθρώποις καὶ τὰ νόμιμα καὶ οἱ νόμοι; καὶ οὐκ οἴει ἄσχημον ἂν φανεῖσθαι τὸ τοῦ Σωκράτους πρᾶγμα; οἴεσθαί γε χρή. Ἀλλ' ἐκ μὲν τούτων τῶν τόπων ἀπαρεῖς, ἥξεις δὲ εἰς Θετταλίαν παρὰ τοὺς ξένους τοὺς Κρίτωνος.

2. Notice briefly the allusions implied in ἐπὶ θεωρίαν, ὅτι μὴ εἰς Ἰσθμόν,—εἰ μή που στρατευσόμενος,—ἐξῆν σοι φυγῆς τιμήσασθαι.

3. (*a*) Distinguish εἰ δέοι τεθνάναι σε from εἰ δέοι θνήσκειν σε and εἰ δέοι θανεῖν σε (*b*) Give the aorist and future infinitives connected with διδράσκειν, and also those connected with δρᾶν. (*c*) Give the compound of the same verb with a different preposition, used in Ecclesiastical Greek in place of ξυνθέσθαι, and the noun for "covenant" corresponding to either verb.

4. (*a*) Explain, and duly restrict, the usage of ὅτι μὴ above exemplified; and also that of μὴ ὅτι, μὴ ὅπως, οὐχ ὅπως. (*b*) Adduce from Thucydides combinations parallel to ἀποδημίαν ἐποιήσω. (*c*) Explain the construction of εἰδέναι after ἔλαβεν,—of πολιτεύεσθαι, as distinguished from πολιτεύσεσθαι, after ὡμολόγεις and ξυνέθου,—of τά τε ἄλλα καὶ ἐποιήσω,—of φυγῆς τιμήσασθαι,—of τῶν νόμων ἐντρέπει. (*d*) Supply the subject of δοκεῖν δικάσαι. (*e*) What idiom in Plato and other Attic writers, is exemplified by the sudden introduction of τίνας λόγους after διαλεγόμενος? (*f*) What do you remark upon such combinations as φανεῖσθαι ἄν, φανούμενον ἄν, φανεῖται ἄν?

IV.—1. Re-translate in the style of Thucydides:—"The Athenians alone, in whatever
plans they form, possess in the same degree as they hope, on account of their making ex-
peditiously their attempt on whatever they decide upon. And in all these struggles are
they engaged, amid toils and perils, through their whole life: and very little do they enjoy
their actual possessions, because of their being always employed in acquiring, and of their
reckoning as a festival nothing else than the performance of duties, and inactive quiet as a
calamity not less than laborious occupation."

2. Re-translate in the style of Plato :—"You, O Athenians! I honour and love; but still I will obey the Deity rather than you. And, so long as I breathe and be able, I will not desist from seeking wisdom, and exhorting you, and expressing my sentiments to whomsoever of you I may at any time meet, saying, as I have been wont to do, 'Most worthy Sir! being a citizen of Athens, the state most influential and renowned for skill and ability, are you not ashamed of being careful about wealth—how you shall have it most abundant, and distinction, and honour, while in respect to intelligence, and truth, and your spirit—how it shall be in the best frame, you are not careful nor concerned? And, if any of you dispute, and allege that he is careful, I will not forthwith dismiss him nor depart, but I will question, sift, and test him.'"

12th October, 1852, 9 *o'clock, a.m.*

GERMAN.—*Examiner, Dr. Abeltshauser.*

I.

1. What are the principal dialects into which the ancient language of the Germans was divided?

2. Which was the predominant dialect in the 9th century (reign of Charlemagne)? In the 12th (under the Hohenstaufen)? Since the 16th? State in each case the causes which led to the prevalence of the dialect.

3. With which dialect has the Anglo-Saxon most affinity?

4. What models did the German authors imitate in the first half of the 18th century?—In the second half of the same century?

5. What was the influence of Lessing?

6. What innovations did Klopstock introduce?

7. Upon what dramatic model did Schiller form his style?

8. What differences are there between his earlier and his later dramas?

II.—ILLUSTRATIONS OF GRAMMAR-RULES AND IDIOMS.

1. Where I remained lately with my narration, I no longer know; this I know, that it was two o'clock in the morning when I got to bed, and that, if I could have talked with you, instead of writing to you, I would perhaps have kept you up until morning.

GOETHE, *Werther's Leiden.*

III.

O eine edle Himmelsgabe iſt
Das Licht des Auges—Alle Weſen leben
Vom Lichte, jedes glückliche Geſchöpf—
Die Pflanze ſelbſt kehrt freudig ſich zum Lichte.
Und er muß ſitzen, fühlend in der Nacht,
Im ewig Finſtern—ihn erquickt nicht mehr
Der Matten warmes Grün, der Blumen Schmelz,
Die rothen Firnen kann er nicht mehr ſchauen—
Sterben iſt nichts—doch leben und nicht ſehen,
Das iſt ein Unglück,—warum ſeht Ihr mich
So jammernd an? Ich hab' zwei friſche Augen,
Und kann dem blinden Vater keines geben,
Nicht einen Schimmer von dem Meer des Lichts,
Das glanzvoll, blendend, mir ins Auge dringt.

SCHILLER, *Wilhelm Tell.*

12th October, 1852, 9 *o'clock, a.m.*

FRENCH.—*Examiner Dr. Abeltshauser.*

I.

1. What are the original sources of the French language?
2. Mention the relative influence of the Latin and Celtic languages on it.
3. Is there any Celtic element in the Latin language itself?
4. Mention some of the rules by which the French derived their language from the Latin.
5. From what case are nouns derived?

II.—VOLTAIRE.

1. What are the different kinds of literature which he cultivated?
2. Name his principal works.
3. Mention the date of his birth; of his death; and the chief events of his life.
4. What injurious effects did his writings produce?
5. Was any good accomplished by them?
6. What were his views respecting Shakspeare?
7. What are the three unities of the French drama?
8. Give a short critique of his Henriade.

III.—GRAMMAR.

Translate into French the following sentences, exemplifying idioms, rules, and forms of words:

1. The Capets reigned when the other sovereigns of Europe were still subjects.

2. The merits of Louis XVI. did not redeem the faults which his ancestors had left to him to expiate.

3. Except a score of men who shall survive and who were destined to hold the torch across the dim deserts on which we are entering—except those few men, a generation which bore within it abounding wit, acquired knowledge, germs of success of all kinds, has stifled authority and experience, birth and genius, in disquietude as unproductive as its pride is barren.

4. Can a political state subsist, in which individuals have incomes of millions while other individuals are dying of hunger, when religion is no longer there with its hopes beyond this world to explain the sacrifice?

CHATEAUBRIAND.—*Mém. d' Outre-Tombe.*

IV.

Il voyait, par une soirée d'hiver, s'illuminer spontanément la façade de son ancien hôtel de la rue de Verneuil. Le bruit de mille voitures retentissait à son oreille; à la clarté des torches, elles entraient dans sa cour circulaire, et chacune d'elles jetait tour à tour sur les marches de son péristyle couvert de tapis et décoré de tentures, les *Merveilleuses* en renom, empaquetées dans d'épaisses fourrures, sous lesquelles frissonait la soie; des *Incroyables*, au feutre pointu, à la haute cravate, aux jarrets enrubanés; des artistes célèbres, au cou nu, aux cheveux courts, au costume semi-grec, semi français; des généraux, empanachés et ceinturés aux trois couleurs; des savants, et des hommes de lettres, avec ou sans collets verts.

PICCIOLA.

EXAMINATIONS FOR THE DEGREE OF M.D.

21st September, 1852, 9 *o'clock a.m.*

SURGERY.—*Examiner, John Hamilton, F.R.C.S.*

1. Name the different dislocations of the hip-joint from violence.
2. Give the distinguishing symptoms of each dislocation.
3. The pathological appearances of a recent dislocation of the head of the femur on the dorsum of the ilium? Those of an old unreduced dislocation of the same kind?
4. Under what other circumstances is the head of the femur found displaced from the acetabulum; and what are the injuries of the hip-joint that might be confounded with dislocation, and their marks of distinction?
5. The best means of reducing each of the different dislocations of the hip-joint. The period at which Sir Astley Cooper considers that attempts at reduction should not be attempted.

1. What diseases or accidents call for the operation of tracheotomy?
2. Describe the instruments requisite for the operation of tracheotomy; the operation itself; the possible accidents; the necessary precautions; and the after-treatment.
3. In case of a small foreign body, as a bean or cherry stone, becoming lodged in the air passages, where would you expect to find it, and what researches would you make to ascertain its exact position?
4. After the trachea is opened, if the foreign body does not come through the wound at once, what have been the most successful means for its removal; and in case of failure, what consequences would you apprehend?

21st September, 1852, *from* 2 *to* 5 *o'clock, p.m.*

THEORY and PRACTICE of MEDICINE.—*Examiner, Dr. Lees.*

1. Enumerate the symptoms and physical signs of Acute Pneumonia in its several stages. State the treatment applicable to these stages, and also the post-mortem appearances peculiar to each.
2. Describe the symptoms of Acute Dysentery, the appearance of the evacuations, the pathology, and your treatment of the disease.
3. What are the different forms of Scarlatina met with in practice? Describe the symptoms and treatment adapted to each.
4. What are the symptoms and physical signs usually met with in Cirrhosis of the Liver? Describe the appearance of the urine, and the pathological changes in the structure of the Liver in this disease.

22nd September, 1852, 9 *o'clock, a.m.*

MATERIA MEDICA and PHARMACY.—*Examiner, Dr. Fleming.*

1. Describe generally the physiological action and therapeutical applications of narcotics, and enumerate the officinal drugs of this class.
2. Give an account of the physiological effects induced by the continued exhibition of iodine, and the iodide of potassium.
3. Colchicum; name of the plant, and natural order to which it belongs; parts employed in medicine, and proper time of gathering them; its action and uses, with its preparations in the Dublin Pharmacopœia, and their doses?
4. Describe the action, probable mode of operation, and uses of cod liver oil.
5. What is cumulative action? Give an example, and state the rule for the administration of cumulative medicines.

6. Explain what is meant by the use of tartar emetic as a contra-stimulant, and state your opinion of this mode of exhibiting the medicine.

7. Give the Latin names of the drugs marked 1 to 10, and the physiological class to which each belongs.

8. Describe the process of percolation, as applied to the preparation of alcoholic tinctures, and compare its advantages and disadvantages with those of maceration.

9. Describe and explain the process of the Dublin Pharmacopœia for preparing the iodide of potassium.

PRESCRIPTIONS.

(*The names of the drugs are to be written in Latin, without abbreviation. The directions must be full and precise, and are to be written in English*)

10. Write three prescriptions:—One for iron, as a pure tonic; a second for gallic acid, in hæmaturia; and a third for mercury and squill, in combination, as diuretics.

22nd September, 1852, *2 o'clock, p m.*

MEDICAL JURISPRUDENCE.—*Examiner, Dr. Fleming.*

1. State shortly the characteristic features of mania, monomania, dementia, and idiocy.

2. Mention the circumstances which justify us in ordering a lunatic to be confined in an asylum; also, the circumstances which justify us in recommending an insane person to be deprived of his civil rights by interdiction.

3. Mention the chief points of distinction between a wound inflicted during life and one made after death.

4. Describe the various modes by which hanging may prove fatal, and state briefly the post-mortem appearances of the hanged.

5. Explain the distinction of local and remote action of poisons, and give three examples of such as destroy life by their local effects, and the same number of examples of such as are fatal by their remote effects.

6. Describe the chemical evidence of poisoning by corrosive sublimate.

7. Describe the symptoms, post-mortem appearances, and treatment of poisoning by oxalic acid.

8. Distinguish the coma of narcotic poisoning from the insensibility of extreme vital depression or exhaustion.

9. Mention some of the articles of animal food which have been found occasionally to give rise to poisonous effects, and describe generally the character of the symptoms produced.

23rd September, 1852, *from* 9 *to* 12 *o'clock, a.m.*

MIDWIFERY.—*Examiner, Thomas M'Keever, M.D.*

1. State the peculiarities as to form, structure, and dimensions, that characterize the adult female pelvis.

2. Give the measurements of the female pelvis anteriorly, posteriorly, laterally, and from the tuberosity of one ischium to the other, with such deductions as should be made for the soft tissues lining the pelvic cavity.

3. Has climate any influence on the configuration of the female pelvis amongst the several varieties of the human race?

4. In what respect does the pelvis of the human subject differ from that of lower animals?

5. Describe the direction of the several axes of pelvis. Is axis of brim liable to vary with change of position of trunk? Suppose a straight line drawn through the body, on what bone would it fall? State the advantages as regards parturition, attendant on the existing arrangement, and why unnecessary in lower animals.

6. Enumerate the inconveniences attendant on too great capacity of pelvis.

7. Detail the principal muscles that traverse the pelvic cavity, together with their uses and attachments. Describe particularly the course of the levator ani.

8. Sketch the course of the peritoneal membrane, as it is reflected over the several organs that occupy the pelvic cavity.

9. What may be the length and direction of the female urethra? What appearance does the external orifice usually present? How is the course of the urethra modified by retroversion or prolapsus of the uterus?

10. Enumerate the several deformities, together with their causes, to which the female pelvis is subject. Which of these the most frequent?

11. Explain the best mode of detecting such deformities. State the objections to the use of pelvimeters.

12. Although the pelvis may possess its normal characters externally, detail the several morbid productions that may occasion diminution of its internal capacity.

13. Does distortion of the spinal column, with diminished stature, necessarily imply deformity of the pelvic cavity?

14. State in the first place the smallest dimensions through which a living infant at the full term of utero gestation can pass; second, the smallest dimensions through which a living fœtus at the seventh month can be transmitted; and lastly, the smallest space through which the fœtal head, reduced to the utmost extent by mutilation, will admit of extraction.

15. Enumerate the most important measurements of the fœtal head, and explain in what manner these measurements correspond with the several dimensions and inclined planes of the pelvic cavity.

16. To what extent does the male fœtal head differ from that of the female? Explain the influence of this difference on the process of parturition and the production of disease.

17. Describe the various positions in which the fœtal head may present at the commencement of labour, and which position you deem the most favourable.

18. Explain the nature and cause of the tumors that form on the scalp of fœtus; what do you consider the best mode of treating such tumors? How are they to be distinguished from hernia cerebri and other morbid affections?

23rd September, 1852, *from 2 to 5 o'clock, p.m.*

DISEASES OF WOMEN AND CHILDREN.—*Examiner, Thomas M'Keever, M.D.*

A lady in the prime of health and vigour, the mother of several living children, was seized with the usual symptoms of labour about 10 o'clock, A.M. The pains continued to increase in duration and severity for several hours, when the waters were discharged, and the head was found to present. After the rupture of the membranes the pains in a great measure declined, but without being accompanied by any unpleasant or untoward occurrence. With the view, however, of expediting matters, the female attendant pressed on the region of the uterus, employing, at the same time, violent frictions over the entire abdomen. After a short continuance of these measures, the head, which had made considerable progress through the pelvis, receded so as to be nearly altogether beyond the reach of the finger. There was considerable discharge of blood; she became low, faint, with a feeling of extreme prostration—pulse feeble and fluttering—countenance sunk and pallid; and she was attacked with violent vomiting. The action of the uterus totally ceased, and the abdominal tumor rose up so high towards the scrobiculus as to occasion most embarrassing and distressing dyspnœa. After the administration of wine, brandy, and other restorative measures, an anodyne draught was directed, and she was left in charge of an intelligent and experienced practitioner. On visiting this lady the following morning, her attendants had the gratification to find that she had enjoyed several hours' refreshing sleep; her countenance had assumed its natural tranquil expression; the pulse became regular and steady; all hæmorrhage had ceased, and she was able to take some slight nutriment. Uterine action speedily returned with increased efficacy and vigour; and in about two hours a living male child was expelled—the placenta coming away about the ordinary period. This patient had a perfectly good recovery, and was out driving in a fortnight.

Offer such practical comments on the preceding statement as may occur to you. With what accident occurring during parturition was the case most likely to be confounded?

2. At what period after parturition is phlegmasia dolens most apt to take place? Describe the symptoms by which it is usually ushered in; which extremity most liable to be affected. Can any satisfactory reason be assigned why one limb in preference to the other should be the seat of the disease? Does it invariably commence in one particular situation? Give the pathology, morbid appearances on dissection, together with the most approved plan of treatment.

3. A lady about six weeks pregnant is attacked with profuse hæmorrhage, accompanied with slight uterine pains. On examination you find a small ovum high up in the womb, and, in addition, a small fleshy pendulous polypus, about two inches in length, attached to the inner lip of the os uteri. How would you treat the case?

4. Describe the ordinary symptoms of infantile remittent fever; the progress of the disease, together with its appropriate treatment. How would you distinguish the cephalic symptoms that are apt to occur at the close of the disease, from a primary affection of the brain?

5. Detail the appearances usually presented by the cow-pock vesicle on the eighth day. How would you distinguish it from a spurious vesicle, such as is observed in children who have been previously vaccinated, or have had small-pox? At what period after insertion of the vaccine fluid are changes first visible? On what day does areola present itself? Is latter appearance essential for the security of the patient? Describe the mark left after detachment of crust. State your opinion as to the efficacy of cow-pock. Would any benefit arise from returning to the primitive source of infection? have any inconveniences resulted from this proceeding? Is revaccination advisable; and under what circumstances?

6. Compare the progress of gestation in a marsupial animal with that observed to occur in a placental mammifer.

24th September, 1852, 9 *o'clock, a.m.*

NATURAL PHILOSOPHY.—*Examiner, John Stevelly, LL.D.*

State distinctly the essential characteristics of a motion of translation, and of a motion of rotation.

If a number of forces be in equilibrio, prove that you may increase all or diminish all in any given ratio without disturbing the equilibrium.

Explain the continued burning of a candle or lamp, and the office the wick performs during the process.

Prove that if the centre of gravity of a body be placed at a highest or lowest point of the path to which it is confined there will be equilibrium. Distinguish the kinds.

State the three circumstances on which the stability of a heavy body, placed on a supporting base, depends.

When has a body placed on a supporting base a tendency to fall by its own weight?

When a load is borne upon a pole by two men, what proportion of the whole load does each sustain?

Explain the quadrantal balance, the principle of its graduation, and its peculiar advantage in taking weights.

In what case does the funicular machine, or rope, become, to the extent of its strength, irresistible in overcoming opposition?

Explain how the sinews and muscles of an animal constitute a most powerful mechanical combination.

By what facts is it shown that gravity acts as forcibly on bodies in motion as at rest, moving fast or moving slow?

Explain why a body weighs less when immersed in a heavy fluid than when it is not so placed?

Explain the method of taking the specific gravity of fluids by the specific gravity bottle.

Why cannot codfish, when drawn up from great depths, descend again in their own element when they happen to fall off the hook?

When is an eye, in optical language, said to be good? And what are the optical causes of the two defects the eye is found to be subject to?

Explain how convex or concave glasses aid eyes which have the one or the other of these defects?

24th September, 1852, 2 o'clock, p.m.

CHEMISTRY.—*Examiner, James Apjohn, M.D.*

1. What is the exact composition of acetate of zinc, and what is the method of preparing it given in the Dublin Pharmacopœia?

2. How is the acidum aceticum glaciale of the Dublin Pharmacopœia made?

3. How would you distinguish a solution of tannic from one of gallic acid?

4 What are the active constituents of aqua lauro-cerasi, and what change does it undergo, if not protected from contact with the atmosphere?

5. Describe the processes for preparing liquor ammonia and acidum muriaticum purum; and explain why, in the case of the former, the tube which delivers the gas is made to pass to the bottom, and in the latter, only to dip a little beneath the surface of the distilled water.

6. In preparing the acidum nitricum purum, the amount of the product and its strength are both a little less than theory would indicate. What is the reason of this difference?

7. What is the process of the Pharmacopœia for making muriate of quina, and why is it preferred to the more direct method of saturating the acid with the base?

8. What is the process for the magnesiæ carbonas; why is it necessary to boil, and what is the exact composition of the product?

9. What is the function of the sesquicarbonate of ammonia, in the process for preparing the potassæ carbonas purum?

10. Explain the theory of the means adopted in the Pharmacopœia for depriving chloride of zinc of iron.

11. How is the hydrargyri ammonio-chloridum made, and what, according to Sir Robert Kane, is its rational formula.

12. Explain the formula of the Pharmacopœia for calomel, and in particular point out the means employed for freeing it from mercury and corrosive sublimate.

13. Why is it improper to use, as was once directed, a solution of sal-ammoniac to wash corrosive sublimate out of calomel?

14. Point out the particulars in which the process of the Dublin Pharmacopœia for iodide of potassium differs from the London and Edinburgh formulæ; and then explain the details and theory of the method of obtaining the same salt by the action of a solution of caustic potash upon iodine.

15. Write the rational formula for alcohol, and enumerate the several varieties of it mentioned in the Pharmacopœia

Write the formula for heavy oil of wine, and state the preparations in which it occurs.

Write the formulæ for sulpho-vinic acid and ether, and give the theory of the production of the latter at present generally taught.

16. Give a definition of specific heat, and explain the erroneous views touching the respiratory process, to prop up which, physiologists at one time conceived it necessary to show, that the specific heat of arterial exceeded that of venous blood.

17. What are the common modes of precipitating albumen from a solution; and if heat be resorted to, to what preliminary treatment should the solution be subjected?

18. When the test employed for albumen is a galvanic current, at which pole does the coagulation take place, and what is the probable immediate cause of it?

19. What do chemists mean by the terms electro-negative, and electro-positive?

20. Describe the methods of applying frictional electricity, as a curative agent, in the following forms:—

1. The electric bath.
2. The aura.
3. The spark.
4. The shock.

And when a jar is used, state the means which should be employed for regulating its charge.

25th September, 1852, 9 *o'clock, a.m.*

BOTANY.—*Examiner, George J. Allman, M.D.*

1. What are *Receptacles of Secretion?* and give an example of their occurrence.
2. Describe the organs known by the name of *Stomata.*
3. What are the forces which determine the *Ascent of the Sap?*
4. Define the term *Rhizoma*, and give an example.
5. What is *definite* and what *indefinite Inflorescence?*
6. Give the leading characters of the natural order *Rubiaceæ*; what are its suborders? and mention some of the principal medical and economic plants belonging to it.
7. Give the leading characters of the natural order *Papaveraceæ*.

Refer to their respective natural orders the specimens on the table marked—

8. A.
9. B.

25th September, 1852, 2 *o'clock, p.m.*

GERMAN.—*Examiner, Doctor Abeltshauser.*

"Guten Tag, wie geht's?" rief eine hier wohlbekannte Stimme. Ein Fußwanderer, ein Mann in anſtändiger Kleidung, aber von den grauen Kamaſchen bis zur grünen Schirmkappe beſtaubt, war durch den Thorweg eingetreten und hatte ſich dem Tiſch genähert, ohne von den Redenden anfänglich bemerkt zu werden. "Ei, Herr Schmitz, ſieht man Sie auch einmal wieder?" ſagte der alte Bauer ſehr freundlich und ließ für den Ermüdeten durch den Knecht das Beſte, was ſich im Keller befand, herbeiholen.

IMMERMANN'S *Münchhausen.*

O ſchöner Tag, wenn endlich der Soldat
In's Leben heimkehrt, in die Menſchlichkeit,
Zum frohen Zug die Fahnen ſich entfalten,
Und heimwärts ſchlägt der ſanfte Friedensmarſch
Wenn alle Hüte ſich und Helme ſchmücken
Mit grünen Mayen, dem letzten Raub der Felder!
Der Städte Thore gehen auf, von ſelbſt,
Nicht die Petarde braucht ſie mehr zu ſprengen;
Von Menſchen ſind die Wälle rings erfüllt,
Von friedlichen, die in die Lüfte grüßen,—
Hell klingt von allen Thürmen das Geläut,
Des blut'gen Tages frohe Veſper ſchlagend.
Aus Dörfern und aus Städten wimmelnd ſtrömt
Ein jauchzend Volk, mit liebend emſiger
Zudringlichkeit des Heeres Fortzug hindernd.

SCHILLER'S *Wallenstein.*

The dogs in the meantime, which had made a dreadful baying at the commencement of the disturbance, seemed now to recognise the voice of him who stood without; for totally changing their manner, they scratched and whined at the door, as if interceding for his admission. The hermit speedily unbolted his portal, and admitted Locksley, with his two companions. "Why, hermit," was the yeoman's first question, as soon as he beheld the knight, "what boon companion hast thou here?"

SCOTT'S *Ivanhoe.*

25th September, 1852, 2 *o'clock, p.m.*

ITALIAN.—*Examiner, Doctor Abeltshauser.*

L'Italia è la terra della musica, e della luce. Trasportiamoci sulle sponde dell' Adriatico quando il Sole apparisce sull' orizzonte: scendiamo in riva del Tirreno allor che tramonta: o vediamo se vi ha cielo, che diffuso di serenità rida d'un azzurro più puro. Saliamo in vetta dell' Apennino e dell' Alpe: e tra il fragore degli Aquiloni, che van contrastando co' cerri, udiamo il rimbalzare delle onde, che si precipitano negli abissi: aggiriamoci su' colli ridenti di Posilipo e di Carregi, al tepente spirar degli Zeffiri, e al mormorar soavo dei ruscelli, che ne fecondano le falde; e noghiamo che la natura sparso abbia in questa felice contrada quella varietà d' accordi e di suoni, che fu il principio dell' Armonia.

ROSINI.—*La Monaca di Monza.*

Cerere, poi che dalla madre Idea
Tornando in fretta alla solinga valle,
Là dove calca la montagna Etnea
Al fulminato Encelado le spalle,
La figlia non trovò dove l' avea
Lasciata, fuor d' ogni segnato calle.
Fatto ch' ebbe alle guancie, al petto, ai crini,
E agli occhi danno, alfin svelse due pini;

E nel foco li accese di Vulcano,
E diè lor non poter esser mai spenti;
E portandosi questi uno per mano
Sul carro che tiravan due Serpenti,
Cercò le selve, i campi, il monte, il piano,

Le valli, i fiumi, gli stagni, i torrenti,
La Terra, e' il mare; e poi che tutto il mondo
Cercò di sopra, andò al Tartareo fondo.

ARIOSTO—*Orlando Furioso.*

I found such a pretty epitaph in the Certosa cemetery, or rather two: one was—

"Martini Luigi
Implora pace;"

the other—

"Lucrezia Picini
Implora eterna quiete."

That was all; but it appears to me that these two and three words comprise and compress all that can be said on the subject—and then, in Italian, they are absolute music. They contain doubt, hope, and humility; nothing can be more pathetic than the "implora," and the modesty of the request;—they have had enough of life—they want nothing but rest—they implore it, and "eterna quiete." It is like a Greek inscription in some good old heathen "City of the Dead."

BYRON'S *Letters.*

25th September, 1852, 2 *o'clock, p.m.*

FRENCH.—*Examiner, Dr. Abeltshauser.*

Il n'est point de touriste en Italie qui n'ait regardé avec plaisir les porteuses d'eau de Venise courant au pas gymnastique, d'un air preste et affairé, sur les dalles de la place Saint Marc. Quoiqu' elles parlent un dialecte peu différent du vénitien, on voit bien, à leur costume pittoresque, à leur petite taille, à leurs traits délicats, qu' elles ne sont point de la race antique des Venètes. On les appelle *Bigolonte* ou *Pagote*. Le premier de ces deux noms tient à leur métier, le second au pays d' où elles viennent. Pago est une île froide et stérile de l' Adriatique, située le long des côtes escarpées de la Croatie. Dans toutes les grandes villes, certaines industries sont exercées par des étrangers à qui la force de l'usage donne une sorte de privilége.

P. DE MUSSET.

Dans le commencement du siècle, l'or avait joui constamment en Europe d'une faveur marquée par rapport à l'argent. La valeur commerciale de ce métal demeurait en moyenne supérieure d' environ 1 pour 100 à sa valeur légale. L'or ne circulait plus qu' en Angleterre à l'état de monnaie; dans toutes les contrées qui ont un double étalon monétaire, la monnaie d'or, à peine frappée, redevenait marchandise et tendait à sortir de la circulation. Des trésors inattendus se révélaient sans que l'exploitation de ces gisements aurifères parvînt à rétablir l équilibre entre les valeurs métalliques et à saturer le marché. La civilisation, en se développant dans les temps historiques, ne faisait que convertir en réalités les légendes des temps fabuleux. L'or en raison de l'importance et de la constance de sa valeur, semblait devoir être à perpétuité le symbole et l'agent principal de la richesse.

LÉON FAUCHER.

I am fond of amusement, in whatever company it is to be found; and wit, though dressed in rags, is ever pleasing to me. I went some days ago to take a walk in St. James's-park, about the hour in which company leave it to go to dinner. There were but few in the walks; and those who stayed, seemed, by their looks, rather more willing to forget that they had an appetite, than to gain one. I sat down on one of the benches, at the other end of which was seated a man in very shabby clothes.

GOLDSMITH'S *Essays.*

27th September, 1852, 9 *o'clock, a.m.*

ANATOMY.—*Examiner, Dr. Carlile.*

1. Describe minutely the articulations of the bones of the fore-arm with each other, and with the bones of the carpus, and the motions which those articulations permit. State the names, positions, and relations to neighbouring parts of the arteries and nerves passing from the fore-arm to the hand, on the anterior aspect of the limb, behind a line drawn across the anterior surface of the wrist, from the outer part of the head of the metacarpal bone of the thumb to the upper and inner part of the os pisiforme.

2. Enumerate the muscles attached to the pelvis, and the vessels and nerves which pass through the apertures and notches of that part of the skeleton.

3. Describe the situation and structure of the pylorus, and the form, connexions, and structure of the small intestine in the adult and in the fœtus. Notice the differences to be observed in the various parts of the small intestine; enumerate the glands which it contains, and the situations in which they are found; say to what vascular trunks its blood-vessels are conjoined, and whence its nerves are supplied; and describe its mode of termination at the large intestine. Describe also the valves of the rectum, and compare their structure with that of the valvular apparatus found in the other parts of the alimentary canal.

4. Describe the course, and relations to neighbouring parts, of the brachial artery, from its commencement to its termination. Mention any important irregularities which are occasionally found in this vessel; and, supposing the artery to be obliterated immediately above the bend of the elbow, say by what vessels will the blood be carried to the fore-arm,

5. Supposing the aorta to be tied between the inferior mesenteric and middle sacral arteries, by what anastomoses will the circulation be maintained in the lower parts of the body?

6. Enumerate the muscles, tendons, and fasciæ which are found in a dissection of the palm of the hand, describing their situations, and the *insertions* of muscles and tendons. Name those muscles in the palm to which there are not any analogous in the sole of the foot, and those in the sole to which there are not any analogous in the palm. Say to what parts of the hand the radial and ulnar arteries, and the radial, median, and ulnar nerves are respectively distributed.

27th September, 1852, 2 o'clock, p.m.

PHYSIOLOGY AND COMPARATIVE ANATOMY.—*Examiner, Dr. Carlile.*

1. Describe the forms of the respiratory organs in mammalia, birds, reptiles, and fishes, noticing the peculiarities in each class. Explain the means by which the blood is brought into relation with the air, for the purposes of breathing, and the changes produced in the air by the respiration of animals and of plants. Mention any experiments which show the effect produced on the passage of the blood through the capillaries of the lungs and through those of the system by the suspension of respiration, and state what is the condition of the respiratory function in hybernation.

2. Compare the form, and the arrangement of the parts, of the kidney in the cetacea, ruminants, and carnivora, and describe the minute structure of the organ in man. Explain the manner in which the secretion of urine is accomplished, and state the composition of this fluid in the healthy human subject. Say in what respect the urine chiefly differs from the other excrementitious products of the body, and what effects are produced on the system by a partial or total suspension of the secretion.

3. Contrast the appearance of the interior of the heart in mammalia and in birds, and describe the structure, position, and uses of the valves of that organ in man. Explain the nature and causes of the arterial pulse, and say whether it be synchronous, or otherwise, in all parts of the body, giving your reasons for your opinion. Describe the frequency of the pulse, in health, at different periods of life, and explain why blood, which generally flows from an artery in jets, is usually poured from a vein in a uniform stream.

4. Describe the composition of the blood, and the changes which are effected in the chyle from its entrance into the lacteals until it passes from the thoracic duct into the veins. State, generally, the peculiarities, in the size and form of the red corpuscles, found amongst the vertebrata, and your opinion of the use of the red corpuscles.

5. What are the chief distinctive characters of mucous and serous membranes, as to situation, structure, function, and alterations induced by disease? Do you know any examples amongst the vertebrata of serous and mucous membranes, or serous membrane and skin, forming continuous surfaces? Enumerate those surfaces of the human body on which ciliated epithelium has been observed, and state your opinion as to the uses of ciliary motion.

6. Detail any experiments, and any facts in comparative anatomy, with which you are acquainted, leading to the determination of the organs and nerves of taste.

HONOR EXAMINATION IN MEDICINE.

2nd October, 1852, 9 o'clock, a.m.

CHEMISTRY.—*Examiner, James Apjohn, M.D.*

1. Express, in symbols, the theory of the conversion of tannic into gallic acid, and mention the proof we have that the oxygen absorbed by the former from the atmosphere does not form water with any of its hydrogen.

2. Why is the muriate of morphia, from which, according to the Dublin Pharmacopœia, morphia is got by precipitation, not retained as the pharmaceutic salt?

3. In making the potassæ bicarbonas, sometime after the introduction of the carbonic acid, a flocculent deposit is generally formed. What is its nature and origin?

4. Explain, in symbols, the composition of Labarraque's disinfecting solution, and the manner of preparing it.

5. In the formulæ for the ferrum tartarizatum and ferri ammonia-citras, the heat is directed not to be carried beyond 150°. What would the consequence be of neglecting this direction?

6. Give, in symbols, the results of the action of the acid on the spirit in the formula for the spiritus æthereus nitrosus, and the purpose answered by the ammonia used in the process.

7. Express, by symbols, the chemical nature of the "arsenici et hydrargyri hydriodatis liquor," the solid ingredients used in its preparation being—

Arsenic, . . .	6 grains,
Mercury, . . .	16 ,,
Iodine, . . .	50·5 ,,

and the atomic weights of these elements being—

Arsenic, . . .	75
Mercury, . . .	100
Iodine, . . .	127

8. If 175 grains of hydrocyanic acid, when supersaturated with potash, is capable of dissolving 31·25 grains of nitrate of silver, what is the per centage of absolute acid which it includes?

9. Sulphuric acid of a certain strength converts hydrocyanic acid into formiate of the oxide of ammonium; and this salt is converted by a stronger acid, with the aid of heat, into carbonic oxide and water. Explain, in symbols, such results.

10. How much bichromate of potash and oil of vitriol are indicated by theory as necessary to convert one ounce measure of fusel oil into valerianic acid; and what is the weight, in the monohydrated condition of the valerianic acid produced, and the composition and weight of the saline residuum of the process?

N.B.—The specific gravity of fusel oil is ·810, and the atomic weights to be used are—

O,	8
H,	1
C,	6
S,	16
Cr,	26·7

11. Sesquicarbonate of ammonia, and the bicarbonate, into which the former is converted by exposure to the atmosphere, upon analysis, yield very nearly the same per centage of carbonic acid. How does it follow from this that the conversion is the result, not of the escape of ammonia alone, but of ammonia and carbonic acid?

12. The fixed vegetable acids, when exposed to a graduated heat, generally yield volatile acids, having a different composition. What are the other products, one or both of which are always formed in such experiments?

13. Assuming that when nitric acid acts upon a protosalt of iron, the gas which escapes is exclusively nitric oxide, calculate in ounces and drachms, by measure, the quantity of the acidum nitricum purum of the Pharmacopœia which would be necessary to peroxidize the iron of 1,000 grains of green vitriol.

14. The salts formed by the alkaloids with the hydracids and oxacids are strikingly similar to the corresponding ammoniacal salts. In what does this similarity consist?

15. In graminivorous animals the volume of the carbonic acid of expired air is equal to (or nearly so), and in carnivorous animals is generally less than that of the oxygen which disappears. How is this accounted for by Liebig?

16. Describe the mode of applying Pettenkofer's test for bile.

17. What are the physical characters of diabetic urine, and what the chemical means by which sugar may be detected in it, and its amount determined?

18. What are the substances found within the animal body in which sulphur (not oxidized) occurs as an element? What is the test of its presence proposed by Liebig, and how, in burning such substances, with a view to their ultimate analysis, would you prevent sulphurous acid from passing with the carbonic acid into the potash tube.

19. How would you conduct the analysis of blood, so as to determine the amount of its fibrin, its albumen, and its globules?

20. What, according to Strecker, are the conjugated acids which, in union with soda, constitute the great bulk of the bile of the mammalia?

4th October, 1852, 9 *o'clock, a.m.*

NATURAL PHILOSOPHY.—*Examiner, John Stevelly, LL.D.*

1. A perfectly hard body whose mass is *a*, impinges on another at rest, whose mass is *n a*, with the velocity *v*, what is the common velocity of both after impact?

2. If the centres of gravity of the several parts of which a mass or system is composed be known, the centre of gravity of the whole can be found. Show the method, and explain clearly its principle.

3. Explain the experimental method of finding the centre of gravity of a body, and the mechanical principle on which it depends, and the practical difficulty which meets us in applying it.

4. When many forces equilibrate on the same lever, how do you find the pressure which the fulcrum or centre sustains?

5. Explain Captain Kater's method of determining the length of the pendulum which oscillates in a second in London.

6. How is it proved, that when a heavy body moves down an inclined plane, every part of which is similarly rough, it moves under the influence of a uniformly accelerating force?

7. Explain fully how you would take the specific gravity of a body which was so light that it would not sink in water.

8. What fact, now well known, led to the opinion long entertained, that fluids have no weight, or do not gravitate in *proprio loco?* Give the correct explanation of this fact, and the true practical inference to be deduced from it.

9. On a day that the mercurial barometer stands at 29·438 inches, what would be the height of a water barometer? the specific gravity of mercury being 13·6 to water 1.

10. Dry atmospheric air at 32° Fahrenheit, and 30 inches barometric pressure, is 773·28 times lighter than the same bulk of distilled water. Calculate the weight of a cubic foot of such air at that temperature and pressure.

11. Explain why a balloon is in danger of bursting as it ascends in the atmosphere, unless part of the gas be permitted to escape.

12. Explain what performs the same office when you are working an air pump, as the pressure of the air on the surface of the water in the well performs during the action of the common pump; and explain what limits the extent to which exhaustion can be carried in the air pump.

13. Explain the principle, and describe the use of Wollaston's reflecting goniometer.

14. Explain the optical principles on which the variety of colour of natural bodies depends.

4th October, 1852, 3 *o'clock, p.m.*

SURGERY.—*Examiner, John Hamilton, F.R.C.S.*

1. In what cases have you bloody urine?

2. Relate the rational symptoms of stone in the bladder, the diseases that simulate it, and describe the operation of sounding.

3. What are the various calculi that are found in the kidneys and bladder, as to chemical composition, colour, form, surface, consistency, and relative frequency?

4. In determining the question of operation, what circumstances would lead you to prefer lithotrity to lithotomy, and what to reject lithotrity?

5. Give the lateral operation of lithotomy in detail, beginning with the preparation of the patient, the instruments, &c., then the different steps of the operation, the parts to be cut through, the dangers, the difficulties, and the occasional after bad consequences, both immediate and remote.

5th October, 1852, 9 *o'clock, a.m.*

BOTANY.—*Examiner, George J. Allman, M.D.*

1. Describe the condition of the corolla in *Aconitum, Delphinium,* and *Helleborus,* respectively.

2. What is the true structure of the flower in *Euphorbia?* and what error did Linnæus commit in his view of the flowers of this genus?

3. Define the term *anatropous* as applied to the *ovule,* and illustrate your definition by a diagram.

4. Describe the various stages in the development of *Pollen.*

5. What is the condition of the *placentation* in *Butomus?*

6. Give an example of a *Dichlamydeous* order containing *apetalous* genera, and name some of the genera so circumstanced.

5th October, 1852, 2 *o'clock, p.m.*

MATERIA MEDICA, PHARMACY, AND MEDICAL JURISPRUDENCE.—*Examiner, Dr. Fleming.*

1. Chloroform; describe its medicinal effects by inhalation, distinguishing the moderate and full degrees of operation; describe also its applications in surgery, medicine, and midwifery; and specify in each case the degree of operation required.

2. Mention the channels by which the following drugs are eliminated, and the changes, if any, which they undergo in passing through the body:—nitrate of potassa, tartrate of potassa, acetate of soda, iodine, iodide of potassium, oil of turpentine, sulphur, benzoic acid, acetate of lead, assafœtida, and camphor.

3. Describe and explain the process of the Dublin Pharmacopœia for preparing the hydrated peroxide of iron.

4. Tannic and gallic acids are both astringents. Mention the circumstances of their action and uses in which they differ.

5. What are the characteristics of morphia, codeia, and narcotin, when tested by:—their solubility in water, alcohol, ether, and caustic alkalies; nitric acid; persalts of iron; iodic acid; perchloride of gold; their flavour and physiological action.

6. Give the botanical references of the true and false Angustura barks; and mention the characters by which they may be distinguished.

7. Describe the symptoms and treatment of poisoning by the false bark.

8. Describe the chemical evidence of poisoning by strychnia.

9. What circumstances would induce you to conclude that insanity is feigned?

10. In a case of poisoning, where we have reason to suspect that some metallic irritant has been taken, but are uncertain which, what antidote would you exhibit? and why? Explain its operation.

6th October, 1852, 9 *o'clock, a.m.*

MODERN LANGUAGES.—*Examiner Dr. Abeltshauser.*

I.

INFLUENCE DU SYSTÈME NERVEUX GANGLIONARE SUR L'ACTION DE L'ESTOMAC.

"La digestion se compose de la réunion d'une foule d'actions d'organes différens, qui toutes concourent à un but unique. Les actes principaux se passent dans l'estomac, c'est lui qui opère presque seul la digestion; il en est le premier et le principal agent; tous les autres ne sont que secondaires et relatifs. C'est aussi par lui que nous allons commencer l'étude de l'influence nerveuse sur l'appareil digestif; nous la poursuivrons ensuite plus facilement dans les intestins.

"L'analyse de l'action nerveuse sur l'estomac mérite une attention particulière, à cause de l'importance de l'organe et parce qu' elle n'avait pas encore été bien appreciée. On a fait beaucoup d'expériences, et aucune n'avait atteint le véritable but, parcequ' on avait recherché l'influence nerveuse en général, sans distinguer ce qui appartenait à chaque système nerveux, et sans avoir égard aux différens actes dont l'estomac était chargé. De même qu' aux poumons, deux sortes de nerfs se rendent en grand nombre à l'estomac : ce sont le pneumo-gastrique, nerf de la vie de relation, et le plexus coronaire stomachique, provenant du grand plexus solaire."—J. L. Brachet, *Système Nerveux*, chap. iii.

II.

"You may trace the influence of the seasons, not only in the prevalence of particular diseases in certain portions of the year, but also in the character of other disorders that are liable to occur in all periods of the year alike : in the character, for example, of fevers. In the majority of cases of continued fever you will find that the pectoral symptoms are most troublesome in the spring, and the abdominal symptoms in the autumn. Watson, *Prin. and Prac. of Medicine*, Lect. vii.

6th October, 1852, 3 *o'clock, p.m.*

Theory and Practice of Medicine.—*Examiner, Doctor Lees.*

1. Describe the symptoms and physical signs caused by aneurism of the abdominal aorta.
2. What diseases may it be confounded with, and how would you distinguish them ?
3. State the rule with regard to the presence or absence of bruit de soufflet in aneurisms of the thoracic and abdominal aorta respectively.
4. Whether is an aneurism of the thoracic or abdominal aorta most likely to become diffused, and state the reasons ?
5. What is Doctor Corrigan's test for aneurism of the aorta ?
6. In what stage is it chiefly applicable ?
7. Enumerate the different pathological conditions which may cause hæmorrhage from the stomach.
8. State the physical and microscopical characters of the urine in diabetes mellitus.
9. What is your opinion as to the seat of the disease in diabetes ?
10. Is it a functional or organic affection ?
11. Describe the mode of treatment, both medicinal and dietetic, you would recommend.
12. What disease generally occurs in connexion with it ?

7th October, 1852, 9 *o'clock, a.m.*

Anatomy, Physiology, and Comparative Anatomy.—*Examiner, Dr. Carlile.*

1. Describe the origin, course, connexions, distribution, and function of the hypoglossal nerve.
2. What are the names, situations, and uses of the small bones of the ear, and their muscles ; and what changes in the number and other circumstances of the bones are to be observed in proceeding from man towards the lower vertebrata ? Describe the sources and the distribution of the branches of nerves found in the tympanum, and say in what manner the different apertures of that cavity are occupied.
3. What is the anatomical composition of those parts of the nervous system called *ganglia;* and what are their functions as contrasted with those of *nerves*, commonly so called ? Enumerate some of the principal ganglia, say where they are situated, and what is their proper function.
4. Describe the formation of the circle of Willis, and enumerate the branches arising from it. Describe also the formation and situation of the "rete mirabile;" say what purpose it serves, and in what animals it is found.
5. Point out the principal differences in form, arrangement, relative size, and presence or absence of parts, to be observed in comparing the brain of man with those of the other vertebrata.
6. Explain the cause of single vision with both eyes, and mention any experiments, and any facts in comparative anatomy, which elucidate this subject.
7. Are you aware of any provision in the eye for preventing or correcting the spherical or the chromatic aberration, and of the means which have been provided for accommodating the eye to near and distant vision ?

7th October, 1852, 2 *o'clock, p.m.*

Midwifery.—*Examiner, Dr. M'Keever.*

1. State the average proportion of twin to single births, as observed in different countries.
2. Prior to parturition, are there any evidences that indicate the presence of twins ; would such an inquiry, however successful, be productive of practical benefit ?
3. Is there any peculiarity in the character of the labour pains, as well as the condition of the passages, that would lead to the suspicion of twin births ?
4. How do twin children usually present ? What form of presentation do you consider most favourable for the mother, as well as her offspring ?
5. Do twin births expose the parent to greater risk of hæmorrhage, as well as the other casualties attendant on parturition ? What is the proportion of deaths in twin cases, compared with single children ?
6. How are placentæ usually circumstanced ? Is placenta of first born ever expelled

before birth of second infant? To what embarrassment as regards the practitioner might such an occurrence lead?

7. Why advisable to place some mark on first born infant?

8. Detail the general mode of managing twin births. Is it advisable to rupture membranes of second child, and why? What risk attendant on leaving the case to the unaided efforts of nature? Suppose uterine action totally suspended, how many hours would you feel disposed to wait? Are we possessed of any means capable of restoring uterine action?

9. State the objections to practitioner quitting the house before the birth of second infant. How long would you consider it necessary to remain with patient after delivery, and what inquiries would you consider it advisable to make before taking leave?

10. Enumerate the arguments for and against the employment of Anæsthetic agents in the practice of Midwifery. What influence are they found to possess on the action of the uterus as well as on the reflex action of the abdominal muscles? Are they possessed of any noxious influence on the circulating system of fœtus?

11. Are the effects of chloroform cumulative; or do they subside speedily after administration?

12. What preliminary inquiries would you consider it necessary to make prior to the administration of chloroform?

13. Detail the unfavourable consequences stated to result from its free, indiscriminate use. On what organ does it principally exert its poisonous influence?

14. If administered in too large quantity, what remedial measures would you consider it necessary to adopt?

15. Do you consider that the pains of parturition are, to a certain extent, salutary, inasmuch as they indicate a healthy condition of the nervous system, and are thus calculated to promote the firm, rigid contraction of the womb; or, do you conceive that a total immunity from suffering insures a more speedy and perfect recovery?

16. Is chloroform objectionable on moral grounds?

17. State mode of administering this agent—its dose—physical and chemical properties—process for preparing. With what substance is it most likely to be adulterated?

18. What are its effects as a local agent?

19. Detail the reasons for and against the use of the speculum in diseases of the uterus. Is it admissible before the period of puberty? In what form of malignant affection would you consider it decidedly injurious? State the position in which you would place patient so as to render its employment as little objectionable as possible.

20. Describe the female generative organs in the ordinary domestic fowl; enumerate the additions made to the ovulum during its passage through the oviduct; at what part is calcification completed? What name has the lining membrane of the egg received? Of how many layers does it consist? How is the chalaza formed; and what are its uses?

21. Briefly detail the anatomical structure of the female generative apparatus in the monotremata; together with the mode of early nutrition, so far as has been ascertained by recent inquiries

22. What are the principal intrauterine diseases to which human fœtus is liable?

23. Describe the appearances usually presented by infants affected with syphilis. How soon after birth would you expect those appearances to present themselves? What is the usual form of eruption? Give mode of treatment.

24. What is the objection to the engagement of a hireling nurse in the case of infants affected with syphilis? If employed, what precautions would you deem necessary?

25. Can syphilis be communicated through the breast-milk of a hired nurse to a healthy infant, although no abrasion whatever exists on surface of nipple?

26. Although both parents are. to all appearance, free from disease, can the child, notwithstanding, be affected with syphilis?

27. Can a healthy mother give birth to a syphilitic infant, the male parent being alone affected?

28. When a female continues to give birth to a succession of diseased children, what do you consider the best mode of treatment?

EXAMINATION FOR THE DIPLOMA IN AGRICULTURE.

21st September, 1852, 9 *o'clock, a.m.*

SCIENCE OF AGRICULTURE.—*Examiner, Professor Skilling.*

1. What nation and people of antiquity excelled in the knowledge and practice of agriculture? Adduce instances of their skill and correctness in the science and practical operations; and compare them with Europe at the present day.

2. Explain the most important and excellent parts of the system of Belgian agriculture, and point out that which might be advantageously adopted in different parts of the United Kingdom at present.

3. State the usual classification and number of different soils in the United Kingdom, and the crops suitable for each.

4. What is the usual per centage of the different earths that will give a name and character to a soil; and what earths are most abundant in soils in different parts of Ireland?

5. How may all the various soils be permanently improved, mechanically and chemically; and how deteriorated?

6. What are the regular processes through which all dead and decaying organic substances, vegetable and animal, pass, and what are the results? Explain the whole.

7. How is the constant and regular consumption and waste of manures, organic and inorganic, supplied by nature?

8. What are the best theories of a succession and of a rotation of crops?

9. What are the essential differences between the food of plants and the food of animals?

21st September, 1852, 2 *o'clock, p.m.*

PRACTICE OF AGRICULTURE.—*Examiner, Professor Skilling.*

1. From what different sources ought the materials of a good manure heap to be collected; how mixed and managed; and how applied to the land, in order to afford the greatest amount of food to the crops?

2. What are the next best fertilizers, and what are their essential principles?

3. What are the best crops to cultivate as food for the various farm animals? 1st, for horses; 2nd, for cattle; 3rd, for sheep; and 4th, for pigs and poultry?

4. Write down a judicious four-course, also a five-course rotation, each containing the usual and necessary crops; and suggest any alterations that may be made to suit circumstances.

5. What are the respective advantages of a tillage and of a pasture farm of like quality; and under what circumstances will one be superior to the other?

6. In laying down land to permanent pasture, and also land for soiling, what are the best seeds in each case; and how much per imperial acre should be sowed?

7. Enumerate and point out the most important considerations that ought to be taken into account in selecting a farm, or in valuing land in general?

8. How may the pasture lands in Ireland be fairly classed and valued?

22nd September, 1852, 2 *o'clock, p.m.*

HISTORY OF FARM ANIMALS.—*Examiner, Professor Skilling.*

1. Write out briefly the natural history of the horse.

2. How has the English and Irish race horse been improved? from what countries and stock?

3. Likewise the draught horse, from whence and how improved.

4. How many distinct breeds of draught horses are at present recognised in the United Kingdom? Which are the favourites? State them in order of merit, and point out their merits and defects.

5. From what stock has the present race of hunters, carriage horses, and roadsters, been bred, and are there any recognised and distinct breeds for these purposes?

6. What are the particulars of the early and natural history of cattle?

7. How are all the breeds and varieties generally and most simply classed?

8. How many kinds rank under the denomination short horns? Point them out in order of merit.

9. In the same manner the middle horns.

10. Likewise the long horns, and the different polled breeds.

11. How are the various breeds of sheep in the United Kingdom usually classed?

12. Point them out in the order of merit, the lowland as well as mountain breeds.

13. What are the most favourite breeds of pigs in the United Kingdom, and how have they been improved? from what countries and stock?

22nd September, 1852, 2 *o'clock, p.m.*

SURVEYING AND MAPPING.—*Examiner, W. B. Blood, A.B.*

1. A straight line is ranged between two points; how produce it without an instrument?

2. How with a theodolite?

3. Required to range a straight line, between two given points, which are concealed from each other by an intervening hill, how, without an instrument?

4. How with a theodolite?

5. A farm is of nearly rectangular figure, show the best arrangement of lines for a chain survey, with proper checks.

6. If the figure be long in proportion to its width, how modify the lines?

7. How set out a right angle with the chain, and what instruments are used for this?

8. Calculate the quantity due to the offsets in the annexed field book, reducing to acres, roods, and perches:—

	500	0
	440	20
0	360	0
20	300	
0	210	0
	130	25
	0	10

9. A rectangular field is 560 links broad. It is required to cut off a portion containing 1A. 3R. 25P. by a fence parallel to the end.

10. What is a "Back sight," "and what a "Fore sight," in levelling?

11. What point has its "Datum height" determined by a back, and what by a fore sight?

12. What effect is produced upon the reduced levels by the staff not being vertical in a back or a fore sight?
13. What is the best way of insuring the vertical position of the staff?
14. How check the field operations in levelling?
15. Give example of level book, and show how you check the reduction.

23rd September, 1852, 9 *o'clock, a.m.*

ARITHMETIC AND MENSURATION.—*Examiner, John Mulcahy, LL.D.*

1. What is the ratio of an ounce Troy weight to an ounce Avoirdupois?
2. Explain the reason of the rule for multiplying vulgar fractions, and illustrate the process when the fractions are $\frac{3}{4}$ and $\frac{4}{7}$.
3. Reduce $\frac{5}{32}$ to a decimal, and give the reason of the process.
4. Admitting the population of Ireland to have been 6,801,827 in the year 1821, and 7,767,401 in 1831, calculate to two places of decimals the rate per cent. which the increase of population in the interval is of the former population.
5. Calculate the interest on seventy-three pounds five shillings and six pence, for two years and nine months, at 3½ per cent.
6. Extract the square root of 12·6736.
7. Given the area of the base and the altitude of a cone, how is the solid content found?
8. How is the area of a triangle found when the three sides are given?
9. Given in numbers the hypotenuse, and one side of a right-angled triangle, how is the area found?
10. Given the radius of a circle, find the circumference to five places of decimals.
11. Given the radius of a circle, how is the area found approximately?
12. If two sides of a quadrilateral figure be parallel, how is the area found, when the lengths of these sides are given and the perpendicular distance between them?

24th September, 1852, 9 *o'clock, a.m.*

GENERAL PHYSICS.—*Examiner, John Stevelly, LL.D.*

Matter or body is found under three distinct forms—the coherent, the liquid, and the gaseous; state the circumstances which essentially distinguish these forms from each other.

On what properties of matter do the use of the winnowing machine, and of the revolving fans used for blowing furnaces, depend?

Prove that no body can have two centres of gravity.

Describe the upsetting bucket; explain its mechanical principle, and how it is used in raising water, as for irrigation.

A bogshead of sugar, which weighs 15 cwt., is raised into store by an axle of 11 inches, worked by a wheel of 10 feet diameter; what strain on the rope wound round the wheel will be required to equilibrate the bogshead of sugar?

What is the mechanical explanation of the fact, that it is more difficult to draw a loaded carriage up a hill than along a level road equally good?

What are the experimental proofs, that the accelerating force of gravity at the same place is the same for bodies of every kind and magnitude?

Calculate the velocity with which a heavy body will be moving, which has fallen freely from rest under the action of gravity, for three seconds.

On what experimental facts are the imperial standards of length, and of weight founded?

How are the imperial standards of liquid measure, and of dry measure, or capacity, defined?

What number is used as the estimate of the work done by a machine?

Show by some simple examples, derived from agricultural processes, the practical importance of a knowledge of the dynamic effect of machinery.

Explain the two distinct uses of the wheels of carriages.

A cubic foot of water weighs 62·321 lbs; what is the pressure on a valve which contains 9 square feet, and whose centre is placed 36 feet below the surface of the water in a mill pond?

Describe how you would take the specific gravity of a sample of stone; and then, having the specific gravity, how you would calculate the weight of any given number of cubic feet of that stone?

How is a governor applied to regulate the motion of a windmill; and why is it required?

On what two properties of steam does its use in the steam-engine depend?

Explain Montgolfier's water ram, and its use in raising water.

24th September, 1852, 2 *o'clock, p.m.*

CHEMISTRY.—*Examiner, James Apjohn, M.D.*

1. In what respect does the air which may be driven off from ordinary water by boiling differ from atmospheric air?
2. What are the chief sources of the carbonic acid of the atmosphere, and what is believed to be the reason why its quantity does not augment?
3. Is the *reducing* agency of plants on carbonic acid exercised at all times, and by every part of the vegetable structure?

4. What is the cause of waters being *hard*, and how would you measure the degree of this quality in any particular instance?

5. Hard waters may be partially softened, either by the addition of a suitable quantity of lime water, or by merely exposing them for a considerable time, by an extended surface, to the atmosphere. How is such a result to be explained?

6. If the carbonate be, as is by some supposed, the only ammoniacal salt which is absorbed and assimilated by plants, how are we to understand the well-established beneficial action of other salts of same base, such as the sulphate and muriate?

7. If *m* grains of marl evolve, when treated with an acid, *n* grains of carbonic acid, prove that its per centage of carbonate of lime will be $\frac{n}{m} \times 227\cdot27$.

8. What part of a cereal crop is benefited more by a *hydraulic* than a *fat* lime, and how is such result to be explained?

9. The lime introduced into a soil by marling, or otherwise, is found after the lapse of some years to have disappeared. What has become of it?

10. Though the juice of a plant should be acid, when incinerated it will yield an ash containing alkaline and earthy carbonates. What is the cause of this?

11. State the composition of gypsum, the mode of converting it into plaster of Paris, the kind of crops most benefited by it when added to the soil, and the views of Davy, of Liebig, and of Boussingault, in relation to the manner of its action.

12. Mention the method of preparing oil of vitriol, its composition when of maximum density, the means of determining its strength, and the circumstances under which it may be applied, in a diluted state, as a substitute for gypsum.

13. What are the proximate constituents of a genuine specimen of commercial superphosphate, and what is the chemical change which one of these experiences when the superphosphate is introduced into a calcareous soil?

14. What known chemical re-action explains the superior advantage of chloride of sodium when used upon calcareous soils?

15. What are the different chemical agents which may be, and are occasionally used, to prevent the loss of the ammonia of dung heaps? State the source of each, its composition, the manner of its action, and the precautions with which it should be employed.

16. In Continental works on Agricultural Chemistry, the term *argil* is often used. What is its exact signification, and how would you effect the analysis of the substance to which it is applied?

17. How would you, in analysis, separate lime from magnesia; iron from alumina and from manganese, and determine the total amount of the fixed alkalies in any earth or ash which may be the subject of experiment.

18. What are the temperatures on the scales of Reaumur and De Lisle corresponding to 76° Fahrenheit; on the scales of Fahrenheit and De Lisle corresponding to 120° Reaumur; and on the scales of Reaumur and Fahrenheit corresponding to 135° De Lisle?

19. Why is a field in a permanently moistened state always colder than a dry field?

20. What is the method of inferring the mean temperature of a place from observations, made once a day, and how is the result thus obtained affected by latitude, and by elevation above or depression below the sea level?

25th September, 1852, 9 *o'clock, a.m.*

BOTANY.—*Examiner, George J. Allman, M.D.*

1. Define *woody tissue* generally, and describe its particular structure in the *Coniferæ*.

2. Contrast the appearances presented in a transverse section of an *Exogenous* and of an *Endogenous* stem.

3. Define the term *tuber*, and give an example.

4. What is *endosmose?* and show how it may be applied to the explanation of the phenomena of *absorption by the root*, and of *the ascent of the sap*.

5. What is the exact part of the *Flax plant* which yields the fibre of commerce? and contrast this organographically and histologically with *Cotton*.

6. Contrast, with respect to the *albumen* and the structure of the *embryo*, the seeds of *Vicia sativa* (common Vetch), and *Triticum æstivum* (Wheat).

ZOOLOGY.

7. What is the difference between the *cartilaginous* and *osseous* group of *Fishes?* and give an example of each group.

8. Define the order *Pachydermata*, and give examples taken from our domesticated animals.

9. What is the peculiarity of the respiratory apparatus in *Birds*, by which these animals become adapted to an aerial mode of existence?

Give short diagnostic characters of the following groups:—

10. *Insecta.*
11. *Mollusca.*
12. *Coleoptera.*

27th September, 1852, 9 *o'clock, a.m.*

MINERALOGY AND GEOLOGY.—*Examiner, James Nicol, F.R.S.E.*

1. Give the characteristics of the systems of crystallization in minerals, and mention some of the more frequent forms of each.

2. What are the chief species of felspar? Describe their forms of crystallization, chemical composition, and geognostic position.

3. Name and describe the chief varieties of calc-spar and limestone.

4. Describe the crystalline strata found in Ireland, mentioning the localities where they occur, and the nature of the soils formed by their decomposition.

5. What are the most important ores found in the crystalline strata, and in what localities do they occur?

6. Describe the divisions of the oolite formation in England, giving the peculiar mineral characters and organic remains of each.

7. What are the earliest formations in which remains of each of the four classes of vertebrate animals have been found? Give a short account of these remains.

8. Describe the characters of the genus *productus*, and mention the deposits in which it is found.

9. Give an account of the more remarkable superficial formations in Ireland, and their influence on the soil.

10. Describe the influence of ice as an agent of geological change in modern and ancient times.

HONOR EXAMINATION IN AGRICULTURE.

1st October, 1852, 9 *o'clock, a.m.*

Surveying and Mapping.—*Examiner, W. B. Blood, A.B.*

1. In the Theodolite what errors are eliminated, and what reduced by the use of two or more Verniers?

2. What is the cause of Parallax in a Theodolite or Level, and how is it to be got rid of?

3. There are three adjustments of the Dumpy Level. Describe them, and the order in which they should be performed; and distinguish between those which are essential to the accurate performance of the instrument, and those which are for convenience.

4. A rectangular mound of earth measures at top 50 feet × 35 feet; height, 15 feet. The sides and ends slope 1½ to 1, and the corners are rounded off to a quarter of a circle. Give contents in cubic yards.

5. The sides of a quadrilateral are AB=1600, BC=1500, CD=2100, DA=1650, and the diagonal AC=2400. Find the area in acres, roods, and perches; the dimensions being in imperial links. Show how to lay down the figure, and the best order in which to take the lines, so as to diminish errors in laying down.

6. How determine the position of a point P, by means of angular observations taken at P, to a number of points whose position is known. Show the mode of laying down on paper with compasses and straight edge. State the number of angles which must be measured to give a check upon the work, and why?

7. A drain has to be cut for a length of 18 chains, imperial, with a fall of ¼-inch per yard. Four stakes, B, C, D, and E, are driven into the ground at intervals of 6 chains along the line of drain, B being at the upper end.

A level placed between B and C gives reading on B = 5·30
C = 4·05
" " " " C = 9·55
" C and D " D = 7·30
" " " " D = 2·10
" D and E " E = 15·85
" " " "

The depth of cutting at B is 6 feet, required the depths at C, D, and E, and the contents of excavation in cubic yards, supposing the bottom width to be 3 feet, and sides to slope 1 to 1.

1st October, 1852, 2 *o'clock, p.m.*

Mineralogy and Geology.—*Examiner, James Nicol, F.R.S.E.*

1. Give a tabular view of the succession of stratified rocks in their proper order.

2. Describe the divisions of the carboniferous formation in England and Ireland, mentioning some of the characteristic fossils of each.

3. What are the principal mineral ores found in this formation, mentioning some localities where they are wrought?

4. Give an account of the principal varieties of coal, stating the differences in their mineral composition.

5. In what forms does phosphate of lime occur in the mineral kingdom? and in what rocks and deposits does it occur in abundance?

6. Describe the mineral composition of granite, and mention the chemical substances each mineral would furnish to the soil.

7. Describe the crystal-forms and external characters of gold. Mention some minerals readily mistaken for it, with the marks by which they may be distinguished.

8. Give an account of hornblende and augite, and explain the chief distinctions between these minerals.

9. In what formations have deposits of salt been found? and with what minerals is it frequently associated?

10. Name and describe the chief products of modern volcanoes.

11. Give an account of the general geological structure of Ireland.

2nd October, 1852, 9 *o'clock, a.m.*

CHEMISTRY.—*Examiner, James Apjohn, M.D.*

1. What are the relations which have been ascertained to exist between the general constitution of a soil, its specific gravity, and the quantity of ammonia it includes?

2. What soils are most benefited by burning; what precautions should be taken in the application of the heat, and how are the beneficial effects of the process to be explained?

3. Why is the old mortar of inhabited houses more active as a manure, than the same amount of calcareous matter?

4. State the mode of insulating the proximate azotized constituents of wheat flour, and mention the relation first ascertained by Hermbstadt to exist between their amount, and the nature of the manure employed in growing the wheat.

5. Upon what principle does Boussingault estimate the relative values of manures; what is the standard substance which he adopts, and the number he attaches to it; and how do you apply his method to the straw of peas, 35·47 grains of which, in a recent experiment, when burned with soda-lime, gave 10·11 grains of the ammonia-chloride of platinum.

N.B.—Atomic weight of platinum = 98·5.

6. In an experiment, also recently made, 28 grains of air-dried pigeon's dung, when burned in the usual manner with oxide of copper, gave a volume of nitrogen which at the temperature of 50°, and pressure of 30, measured 7·40 cubic inches. Deduce from this result the number representing its value in the scale of Boussingault.

N.B.—Specific gravity of nitrogen = ·9722.

7. When, in the analysis of commercial superphosphate of lime, the actual superphosphate has been washed out by boiling distilled water, it will be proper, before precipitating this with ammonia, to add to it a little chloride of calcium. Why is this the case?

8. In burning guano with soda-lime, the ammonia obtained is derived from two sources. What are these, and how do you determine the proportion derived from each?

9. How do you determine the total amount of the salts of the fixed alkalies which are always present in guano; what is their nature, and what the means by which their relative quantities may be determined?

10. Calcined bones consist of phosphate of lime, phosphate of magnesia, carbonate of lime, and traces of fluoride of calcium and alkaline salts. How would you affect the analysis of such a mixture?

11. Assuming that bones sold for agricultural purposes have the following average composition, viz:—

Organic matter, . . .	25·
Phosphate of lime, . .	60·
Carbonate of lime, . .	15·
	100·

What is the weight of the oil of vitriol, indicated by theory as necessary to convert a hundred weight of such bones into a mixture of sulphate of lime and superphosphate of same base?

12. Assuming the truth of the prevalent opinion, that insoluble salts cannot enter the organization of plants, there is a difficulty in understanding how superphosphate of lime can be productive of any beneficial effect in a calcareous soil. In what does the difficulty consist, and how has it been surmounted by the experiments of Dumas?

13. Describe the mode of dealing with a liquid manure with a view to determining, first the amount of its nitrogen—second, that of its phosphoric acid.

14. What is the exact composition of the ammoniaco-magnesian phosphate, and of the salt of phosphorus; why does the latter act as a fixed acid in blow-pipe experiments, and what is the method given by Boussingault of preparing the former for the purposes of agriculture?

15. When guano is incinerated, then acted upon by muriatic acid, and that ammonia is added to the acid solution, what other substances may, in the case of a specimen of adulterated guano, be precipitated with the earthy phosphates?

16. What are the mineral waters (many instances of which occur in Ireland), which are deprived of their characteristic constituents by mere exposure to the atmosphere, and what is the explanation of such results?

17. If, in analyzing a water which, after being first boiled and then cleared by filtration, is found neutral, the muriatic and sulphuric acids, determined by the usual experiments, are found insufficient in amount for neutralizing the bases, what third acid may be concluded to exist in the water, and how is its presence best determined by direct experiment.

18. What, according to Saussure, is the limit beyond which, if the proportion of the carbonic acid in the air be augmented, it will prove injurious to vegetation?

19. What were the experimental results which induced Boussingault to conclude, that some of the carbon of the carbonic acid of the atmosphere is assimilated by plants as carbonic oxide?

20. Mention the means which it would be proper to adopt for the purpose of demonstrating the presence of iodine in a water, and of determining the quantity of it contained in kelp.

THEORY OF AGRICULTURE.—*Examiner, Professor Skilling.*

2nd October, 1852, 2 *o'clock, p.m.*

1. What should be the constituents of a fertile sod in the climate of Ireland: and in what proportions ought the principal earths, salts, metals, metallic oxides, manures, organic and inorganic, to be?

2. In what state or condition ought every soil to be, in order to facilitate the great operations of nature and human exertion, to sufficiently fix and sustain plants, prepare and supply the food of the vegetable kingdom?

3. Describe the effects of lime applied to different soils, to argillaceous, calcareous, siliceous, and peat, before and after draining—its action and effects upon rich and upon poor land; and suggest what changes it may undergo in the soil in process of time.

4. State the principal effects and advantages of draining and deepening formerly wet and shallow land, in regard to labour cropping, seed time, &c.

5. Point out the proximate principles of plants and of animals, and the essential difference between them.

6. What would you consider, under present circumstances in Ireland, a judicious and profitable rotation course of cropping and management, to be pursued on a farm of what may be termed clay soil? How would you change this to suit one of a calcareous character; and again, one of a siliceous, each being of medium quality and in fair condition?

7. Write out a correct seven, eight, or ten course rotation for a tillage farm, including all the usual and necessary green fallow, grain, and grass crops—with pulse and flax; place each in its proper position, and suggest any stolen crops that may be taken.

4th October, 1852, 9 *o'clock, a.m.*

Natural Philosophy.—*Examiner, John Stevelly, LL.D.*

1. Prove that two perfectly elastic balls, containing equal masses, reciprocate, after collision, the velocities with which they had been moving before.

2. A perfectly hard body strikes a perfectly hard and smooth plane, meeting it with a given velocity in a line making a given angle with the plane: find the velocity with which the body moves after the stroke, and its direction, and give the expression for the lost velocity.

3. A man who knows his own weight to be twelve stone, finds that by placing a beam of timber which is twenty feet long, and of equal dimensions in its cross sections throughout, within seven feet of one end, on the edge of a flag, or other even support, and standing on it within six inches of that end, his weight just balances that of the timber. Required the weight of the beam in pounds avoirdupois.

4. A traveller buys a mass of gold at an elevated station on a mountain; the weight being ascertained by a delicate spring-balance which had been adjusted in London. When selling this gold afterwards in London, would he have a greater or less weight to dispose of than he had paid for?

5. In the above case state clearly—
   (1) The principle on which the numerical calculation should be conducted of the part of the difference caused by the different elevation of the two stations above the level of the sea.
   (2) What other causes would also require to be taken into account, in making the calculation complete?

6. Prove that the same force, acting tangentially at any point of the circumference of a rigid wheel, will exert the same power to turn it round its central axis.

7. How may the proportion of two forces which will equilibrate on a machine, be ascertained, even when we are ignorant of the precise parts or proportions of the machinery which connect the points at which they act?

8. What fraction expresses the proportion of the angular velocity of a wheel driven by a pinion in a train of wheel-work?

9. Which is friction less on a horizontal plane or road, or on the same plane or road placed at an angle to the horizon? State and prove the exact proportion.

10. By what simple experiment can you ascertain what part of the tractive force of a horse, on a road of given materials and given gradient, is employed in overcoming friction?

11. Prove that the weight of any given bulk of a body can be found by multiplying the number expressing that bulk by the specific gravity of the body, and the product by the weight of the cubic unit of distilled water.

12. If a body will dissolve in water, or absorb it, explain accurately the methods to be adopted for finding its specific gravity?

13. Explain on which side of a water-wheel the gearing should be placed which communicates its power to the machinery, and point out the reason and importance of attention to the distinction.

14. If the sails of a windmill be considered as planes set at a certain angle to the wind, explain the proportion of the part of the force of the wind which turns the sail round the axis, to the greatest force the wind could exert on that sail placed perpendicularly to its direction. Show that there are two positions in which the wind will exert no power to turn it round, and a position in which it will exert a greater power than in any other.

4th October, 1852, 2 *o'clock, p.m.*

Practice of Agriculture, and History and Diseases of Farm Animals.—
Examiner, Professor Skilling.

1. On a tillage farm properly stocked, cropped, and conducted, what work and attention to stock will be necessary during the month of April, the month of July, and the month of October, in each year?

2. On a pasture farm, stocked with horses, cattle, and sheep of various ages, what attention to feeding and care will be necessary during the months of March, October, and December, in each year?

3. What may be considered, under the present circumstances of this country, the most economical and profitable system of farm management that may be generally adopted, by which the greatest amount of produce and profits may be *continuously* raised off the like quantity and quality of land?

4. In what manner have superior and distinct breeds of farm animals been produced and established? Mention the names of individuals who have distinguished themselves in these important points of breeding.

5. What breed of cattle is the favourite in the United Kingdom at present? State their chief merits and excellences.

6. Likewise draught-horses.

7. Also sheep and pigs.

8. How may you simply classify the various diseases incident to the animals of the farm? Point out the usual applications and proper remedies in each case.

9. How shall you best ascertain the nature of the maladies, and distinguish the symptoms of common colic and inflammation of the bowels in the horse? of red water and *pleura pneumonia* in the cow? of rot and red water in the sheep?

5th October, 1852, 9 o'clock, a.m.

BOTANY.—*Examiner, George J. Allman, M.D.*

1. Describe the form of tissue called *laticiferous*. Where does it chiefly occur? and what remarkable phenomenon has been attributed to it by certain physiologists?

2. What is the theory of Gaudichaud concerning the growth of stems?

3. By what facts is this theory supported?

4. What objections may be urged against it?

5. Contrast the composition of a *fibro-vascular fasciculus* in the stem of an *Exogen* with that in the stem of an *Endogen*.

6. What facts tend to lessen the value of the character derived from the presence of *cellulose* in plants as a distinguishing mark between these and animals?

ZOOLOGY.

1. What is the difference in the structure of the mouth between a *Lepidopterous* and a *Coleopterous* insect?

2. Enumerate the different forms of horns met with among the *Ruminantia*, and mention an instance of the absence of horns in the male animals of this order.

3. What are the forms of tissue existing in a complete *mammal* tooth?

4 Describe the arrangement of these tissues in the teeth of the Sloth, Ox, and Dog, respectively.

5th October, 1852, 2 o'clock, p.m.

ARITHMETIC AND MENSURATION.—*Examiner, John Mulcahy, LL.D.*

1. If the rated property in a union amount to £123,000, find, within a farthing, the rate (per pound) which must be struck, in order to raise 3,274 pounds 10 shillings.

2. Find the product of 459·63524, and 25·4637, to three places.

3. State the rule for finding the greatest common measure of two numbers, and explain the reason of it.

4. Reduce 3 roods 19 perches 10·89 square yards to a decimal of an acre.

5. A rectangular cistern, the length of which is 6 feet 4 inches, the breadth 3 feet 2 inches, and depth 3 feet 10 inches, is to be lined with lead; what will be the expense, supposing the lead to be $4\frac{1}{4}$ pence per pound, and that 8 pounds go to the square foot?

6. A block of granite in the form of a cube contains $1103\frac{10}{27}$ cubic feet; required the length of its side?

7. The axes of an ellipse are 18 and 24 feet respectively; find its area in square feet to four decimal places.

8. Find the number of acres, roods, and perches in a triangle, whose sides are 20, 30, and 40 chains respectively.

9. Given the radius of a sphere, how is the surface found approximately?

10. Supposing the radius and surface known, how is the solid content found?

EXAMINATION FOR THE DIPLOMA OF ELEMENTARY LAW.

24th September, 1852, 9 o'clock, a.m.

JURISPRUDENCE.—*Examiner, Professor Heron.*

1. In the most extensive scientific acceptation, what does the term law imply?

2. Show that the term law, in its general philosophical sense, is no less applicable to the phenomena of mind than to the phenomena of matter.

3. Upon what principles has it been held that the general utility of actions cannot be admitted as a criterion of their morality?

4. Name the principal philosophers in modern times who have founded their theories of morals on the principle of utility.

5. An ancient school of philosophy held the same doctrine.

6. In what is the foundation of law to be sought?

7. What method of cultivating law was adopted by the classical jurisconsults of the Roman Empire?

8. Define *jus naturale, jus gentium, jus civile, jus commune.*

9. Name the principal writers on Jurisprudence in the sixteenth century.

10. In what year was the treatise of Grotius, *De Jure Belli et Pacis*, published? State the objects and plan of the work.

11. Name the principal writers on Jurisprudence—
    (a) In the 17th century.
    (b) In the 18th century.

12. From the writings of the most eminent jurists in modern times, what appears to have been their primary object to discover and establish?

13. From what principal cause does obscurity of thought and expression prevail amongst modern jurists?

14. Two other causes have led to diversity of opinion amongst modern jurists.

15. Who first in England pursued in Jurisprudence the course pointed out by Lord Bacon?

16. In its general sense coercive law may be viewed in two distinct ways.

17. What duties come within the province of justice?

18. All the actions which are beyond the cognizance of justice may be divided into three distinct classes.

19. Explain the terms *justitia attributrix* and *justitia expletrix.*

20. Is the division of rights into perfect and imperfect rights correct? If so, state the reasons. If not, why not?

21. In its more strict sense, justice still has two acceptations.

22. Ethics and Jurisprudence differ essentially in the means which they employ to promote the happiness of mankind?

23. What is the true principle of legality as distinguished from morality?

24. Show that general utility is not a principle peculiar to, or solely applicable to jurisprudence.

25. Name the principal codes of modern times.

24th September, 1852, 2 *o'clock, p.m.*

Law of Real Property and Principles of Conveyancing.—*Examiner, Dr. Lawson.*

1. What was the object proposed to be effected by enacting the Statute of Uses? Did it accomplish that object? What was the immediate, and what the ultimate effect of the Statute on Conveyances?

2. Did the Statute of Uses fail in destroying the jurisdiction of Courts of Equity; and, if so, why?

3. If freehold land be conveyed—
   To A, to the use of B, a purchaser; or,
   To A, to the use of B, to the use of C, a purchaser.
State the nature of the estates vested in A, B, and C, respectively, in each case, since the Statute of Uses and before it?

4. What is the operation of the Statute of Uses on chattel interests?

5. Explain the difference between Conveyances which operate at Common Law and under the Statute of Uses, and illustrate it in the case of a Conveyance by Lease and Release.

6. Are there any instances in which a rigid adherence to technical expressions is necessary even in Deeds? If so, mention them.

7. "Conditional Limitation."
   "Executory Devise."
   "Shifting Use."
   Explain the above terms.

8. What is the Law of Primogeniture?

9. Is there any estate or interest by Law absolutely inalienable?

10. If an estate be given by Deed—
    To A, and his heirs male.
What estate does A take? What if given by will?

11. State the rule in Shelley's case.

12. State the four general rules which are to be observed in construing a Deed.

13. In the case of a chattel real left by will, who can make a title to it?

14. On what principle does the rule of Law rest—"that a Tenant is not allowed to dispute his Landlord's title?" State any other analogous rules of law which may be referred to the same principle.

15. A Landlord entitled for three lives, demises for the same three lives, reserving rent—what are the Landlord's remedies for recovery of the land and rent?

25th September, 1852, 9 *o'clock, a.m.*

Common Law and Criminal Law.—*Examiner, Dr. Lawson.*

1. Point out the difference between the Common Law, the Statute Law, and Equity.

2. What is the difference between specialties and parol contracts? and when is a consideration required in order to give validity to a contract?

3. The general rule of Law is, that a voluntary courtesy will not uphold an assumpsit; but a courtesy moved by a previous request will. State some of the exceptions to this rule. Are the exceptions real or apparent?

4. Can a party constitute another his debtor without the previous or subsequent assent of that other? Mention some instances.

5. On the sale of a specific chattel, is there any warranty implied by Law of its fitness for the purpose for which it is sold? Suppose it proves unfit, what are the remedies of the buyer?

6. What is the right of "stoppage in transitu?" and how is the exercise of the right defeated?

7. What is the extent of the liability of a common carrier? and how is it qualified by Statute?

8. A merchant in Dublin orders goods from a merchant in Liverpool, to be sent by the first conveyance; the goods are shipped in the next packet, and are lost? who is to sue the carrier for the loss?

9. Can the acceptance of a negotiable security by a creditor for an amount less than his debt be relied on as a satisfaction of the debt?

10. A is indebted to B in £1,000. money lent; B writes to him, "I forgive you your debt of £1,000, and enclosed is a receipt for the amount." B dies shortly afterwards, and his executor sues for the money, and proves the fact that it was lent. Do the above facts furnish any defence to the action?

11. Will a parol acknowledgment of payment of interest on account of a debt within six years take a case out of the Statute of Limitations, the debt being more than six years old?

12. What is the effect of payment or of acknowledgment by one joint contractor, in taking the case out of the Statute of Limitations against his co-contractor?

13. A party declares on a joint contract entered into by two defendants; one of the defendants suffers judgment to go by default, the other defends the action and obtains a verdict; what is the result as regards the other defendant?

14. When is a party excused from performing a contract by the act of God, or inevitable accident?

15. A party enters into a contract in his own name, but really as agent for another; if an action is brought against him on the contract, and he proves that he was a mere agent, will be be held liable?

16. A party enters into a contract in his own name, but really as agent for another, which fact he does not disclose; what are the rights of the party with whom he contracted against the agent and against the principal?

17. What is the distinction between public and private wrongs?

18. In what cases and how does the Law allow a party to redress his own wrongs?

19. When is a party prohibited from compromising an injury inflicted on himself?

20. What is the distinction between excusable, justifiable, and felonious homicide?

21. What is necessary in order to render the confession of a prisoner admissible in evidence against him?

27th September, 1852, 9 *o'clock, a.m.*

Civil Law.—*Examiner, Professor Heron.*

1. Enumerate the principal sources of the Roman Law.

2. What was the *corpus juris civilis?*

3. By whom were the Institutes compiled? and in what year were they published?

4. The classification of Law employed in the Institutes has been followed in modern times?

5. State the definition of Justice according to the Institutes.

6. What was the *Jus Honorarium?*

7. Weisembech has neatly expressed Justinian's classification of Law.

8. An English statute has been founded upon the 118th novel of Justinian.

9. What was the difference between *tutores* and *curatores?* to what classes of persons recognised by the Law of England are they respectively analogous?

10. Explain the terms *jus in re* and *jus ad rem.*

11. Justinian classifies things in reference to their appropriation, first under two, then under five heads.

12. Servitudes are of two species in the Civil Law.

13. State the subdivisions of each species of servitude.

14. To what right in the Civil Law is an estate for life in the English Law analogous?

15. Three things are required by the Roman Law for prescription.

16. Explain the *donatio mortis causa.*

17. The antiquity of this contract is shown by two instances in Greek Classical Literature.

18. What was the *querela inofficiosi?*

19. What was the *substitutio?* To what was it analogous in the Law of England?

20. By whom, and when, were the Pandects brought to England?

21. What early writers on the Laws of England borrowed from the Civil Law?

22. What principal reasons influenced the exclusion of the Civil Law from England?

23. Mention the Courts of Justice in England and Ireland where the procedure is founded wholly or in part upon the Civil Law.

24. To what extent does the Civil Law prevail in British Colonies?

27th September, 1852, 2 o'clock, p.m.

EQUITY AND BANKRUPTCY.—*Examiner, Dr. Lawson.*

1. What is the origin of the distinction between Courts of Law and Equity in this kingdom?

2. Mention any instance where the Legislature has conferred upon Courts of Law a jurisdiction previously peculiar to Courts of Equity.

3. Mention some instances in which the jurisdiction of Courts of Law and Equity is concurrent, some in which the jurisdiction of Law ousts the jurisdiction of Equity, and some in which Equity controls the Law.

4. "Choses in action are not assignable." On what principle does this rest? Is it of universal application? Is it acted on in Courts of Equity, and if so, to what extent?

5. What are the consequences of mistake in facts, and mistake in law; and how are they respectively dealt with in Courts of Common Law, Courts of Equity, and by the Civil Law?

6. What is the doctrine of Election, and on what foundation does it rest?

7. What is the legal effect and operation of a mortgage, and how does Equity control the Law in dealing with the rights of mortgagor and mortgagee?

8. What description of fraud will avoid a deed at Law? What in Equity?

9. A enters into a contract with B, by which he agrees to build a house for B, on B's land, according to certain plans and specifications for a specific sum. A provides materials and commences the building, when he is stopped by B, who without any valid reason, refuses to permit him to proceed with the work; can A maintain a suit against B for the specific performance of this contract? On the other hand, suppose A, without any valid reason, refuses to proceed with the work, can B maintain a suit against A to compel him specifically to perform his contract?

10. State the effect of bankruptcy and insolvency, respectively, on the rights and remedies of judgment creditors.

11. State the effect of bankruptcy and insolvency, respectively, as regards the liability of after-acquired property to debts due before the bankruptcy or insolvency.

12. What is the law with respect to new contracts by bankrupt and insolvent, to pay debts from which they were discharged by the adjudication of the Courts of Bankruptcy or insolvency?

EXAMINATION FOR HONORS IN LAW.

11th October, 1852, 9 o'clock, a.m.

EQUITY AND BANKRUPTCY.—*Examiner, Dr. Lawson.*

1. A dies intestate leaving personal estate, how is it distributable in each of the following cases:—
    1. If he leave a widow and children.
    2. Widow and brother.
    3. Brothers, sisters, and the children of a deceased sister.

2. Explain the maxim "He who seeks equity must do equity," and give some instances in which it is acted upon.

3. A plaintiff files a bill for an account against the defendant on foot of a partnership; the defendant alleges that the plaintiff has certain moneys of his in his hands, upon foot of a transaction unconnected with the partnership, and requires the plaintiff to give an account of those moneys, as the condition of his obtaining a decree for an account against the defendant. Is the defendant entitled to this equity?

4. Does the case last mentioned fall within the maxim "that he who seeks equity must do equity," or within the rule "that a Court of Equity gives complete relief," or within some and what other rule?

5. Explain "multifariousness" and "misjoinder." What is the distinction between them, and their consequences in a suit?

6. A deposits the title deeds of his estate with B, by way of equitable mortgage to secure £1,000. B files a bill to raise the amount of the mortgage, and registers the suit as a lis pendens. A subsequently sells the estate for valuable consideration to C, who has no notice of the mortgage or of the suit. Can C hold the estate discharged of the mortgage to B?

7. A has a wife and one daughter; he is entitled to real estate and to personal estate, which consists of Government stock, cash at his bankers, and a sum of £1,000 which has been bequeathed as a legacy to his wife, but has not yet been paid; he desires to make a will, leaving the £1,000 legacy to his daughter, provided she marries with his wife's consent, leaving to his wife for her life the rents of his real, and the income of his personal estate, and upon her death the entire to be applied to the building and maintaining an alms-house, for the support of poor persons, bearing his own name. Prepare the draft of such a will; state your opinion as to the validity of the bequests in the event of the testator dying immediately after the execution of the will, and before the legacy of the £1,000 has been received.

8. Lessee for term of years becomes bankrupt. What are the rights and liabilities of the bankrupt and his assignees in respect of the lease?

11th October, 1852, 2 *o'clock, p.m.*

Law of Property and Principles of Conveyancing.—*Examiner, Dr. Lawson.*

1. Explain the term "Protector of the Settlement."

2. What is the effect of an assurance by tenant-in-tail, if made with the consent of the Protector? what, if made without the consent of the Protector? How does this correspond with the law as it existed before the Abolition of Fines and Recoveries?

3. A dies seized in fee of lands which were let at the time of his marriage upon leases for lives still subsisting. What are the rights of his widow to dower?

    1. If the marriage took place before 1834.
    2. If since 1834.

4. What remarkable distinction did Courts of Equity make between dower and tenancy by the curtesy, and what was the reason of that distinction?

5. A purchases an estate, and dies intestate, and without issue, leaving a father, mother, brother, and sister him surviving. Who takes the estate under the present Law of Inheritance, and who under the old law?

6. A lease is made for 99 years. reserving a rent of £20 a-year, no rent is paid during a period of more than 20 years. What is the effect of such non-payment upon the right of the reversioner to recover the land and the future rent?

7. A and B are about to marry. A has a fee simple estate, B has a fortune of £10,000. It is proposed to settle the estate in strict settlement, providing a jointure of £1,000 a year for B and £10,000 for portions for younger children, to be divided amongst them in such shares as A and B, during their joint lives, or the survivor of them shall appoint. The interest of the £10,000, B's fortune, is to be paid to B for life for her separate use, and the principal unto and amongst the children of the marriage, as B shall, by deed or will, appoint. Prepare the draft of a settlement in conformity with the above instructions, and after setting out the limitations fully state what are the proper covenants and provisos to be inserted.

12th October, 1852, 9 *o'clock, a.m.*

Common and Criminal Law.—*Examiner, Dr. Lawson.*

1. *Ex turpi contractu non oritur actio.* Explain this maxim, give some instances of its application, and state upon what principle it is founded.

2. Give some instances of contracts which have been held invalid as being against public policy. Can a party who pays money in pursuance of such a contract maintain an action to recover it back? If so, give an instance.

3. In the case of a fraudulent contract, is the contract void or voidable only? and, if the latter, who may avoid it?

4. Is there any, and if so, what distinction between the effect of an illegality created by Statute, and one at Common Law?

5. State the substance of the provisions of the 4th and 17th sections of the Statute of Frauds, and the effect of non-compliance with the enactments upon the rights of the parties to the contract.

6. In criminal cases what is now the power of the Court with respect to amending Indictments?

7. Prepare a form of Indictment for Murder.

8. Also for Manslaughter.

9. What are the statements now necessary to be made in an indictment for obtaining money under false pretences?

12th October, 1852, 2 *o'clock, p.m.*

Civil Law.—*Examiner, Professor Heron.*

1. After the Norman Conquest, when, and by whom was the study of the Civil Law introduced into England?

2. Sketch the origin and history of the *fidei commissa* in the Civil Law.

3. What important portion of the law of England was borrowed from the *fidei commissa?*

4. From what example was borrowed the idea of the writ of subpœna, returnable into Chancery.

5. What terms in the Civil Law exactly correspond to *declaration, plea in abatement, plea in bar, replication, rejoinder, surrejoinder?*

6. When was the purely technical system of pleading abolished in Rome?

7. In the obligation of suretyship, the Civil Law differs from the Law of England, as to the consequence of the creditor giving time to the principal.

8. Define bailment State the definitions which Lord Chief Justice Holt borrowed from the Civil Law, in *Coggs v. Bernard.*

9. Servitudes in the Civil Law include two species of property in the Law of England.

10. What is the distinction between *hypotheca* and *pignus?*

11. The *actiones legis* corresponded to certain portions of the English legal system.

12. The consolidation of the law, under Justinian, effected a remarkable change with respect to the *Jus Prætorium.* Mention an analogous feature of the recent law reforms in New York.

13. Whence is derived the practice of probate of wills in the Ecclesiastical courts?

14. From what principle of the Civil Law has the mercantile law of bottomry been derived?

15. From what portion of the Civil Law is derived the equitable doctrine of Injunctions?

16. What was the the *jus emphyteusis?* Give the derivation of the word.

13th October, 1852, 9 *o'clock, a.m.*

JURISPRUDENCE.—*Examiner, Professor Heron.*

1. Define Jurisprudence as a Science and as an Art.
2. There are three phases in the development of Law. Illustrate them from the development of the Law of Evidence.
3. There are four ways in which the Law of England fails egregiously in the protection which it undertakes to provide for real property.
4. What are the most important portions of the Civil Law of a country, next to those which determine the status of the labourer?
5. There is a great desideratum wanting in the Law of Nations
6. There is one sort of joint stock association which the English Law absolutely disallows. State the restrictions under which it might be permitted to exist.
7. The laws of most countries, England included, have erred in a twofold manner with regard to joint-stock companies.
8. In the recent Factory Acts, labour has been placed under certain restrictions. Do you approve of such policy—
    (a) In the case of adults?
    (b) In the case of children?
9. By what means do fictions arise in the law of a state? Illustrate this from the history of the action of ejectment.
10. Savigny briefly expresses the object of a statute.
11. In the interpretation of the Statute Law there are four elements.
12. Ortolan has stated three reasons to show that the codification of law in France has been injurious to its cultivation as a science.
13. Rossi has pointed out the branches of the law in which the French codes have been found defective.
14. The greatest-happiness principle is not peculiar to Jurisprudence.
15. From what principle does the original spontaneous growth of law amongst a people merge into its scientific development by a class?
16. Jurisprudence, as it considers the natural rights of men, may be arranged in four great divisions. Place these in chronological order, and explain the reasons for such an arrangement.

V.—CANDIDATES passed for DEGREES and DIPLOMAS in the QUEEN'S UNIVERSITY, 13th October, 1852.

1. *For the Degree of Doctor in Medicine.*

Stephen Donegan, Cork.
William Evans, Belfast.
Robert Gillespie, Belfast.
William Greenfield, Belfast.
Walter Humphries, Cork.
James Forsythe Patrick, Belfast.
William Stewart, Belfast.

2. *For the Degree of Bachelor in Arts.*

Richard Blair Bagley, Cork.
Boyle William Coghlan, Cork.
John Craig, Belfast.
Charles Winston Duggan, Galway.
Robert Dunlop, Belfast.
John Evans Galway.
Thomas Henry, Belfast.
Moffatt Jackson, Belfast.
William Johnston, Galway.
William Henry Jones, Cork.
John Nicholas J. Keily, Cork.
William Lupton, Belfast.
George Yeilding M'Mahon, Galway and Belfast.
David Hill M'Murtry, Belfast.
James Mongan, Cork.
Henry Hickman Morgan, Cork.
John James Noble, Belfast.
William O'Halloran, Cork.
Mathias O'Keeffe, Cork.
John Richardson, Galway.
Dominick D. Ryan, Galway.
James Wilson, Belfast.

3. *For the Diploma of Elementary Law.*

Thomas Dunbar Ingram, Belfast.
George Yeilding M'Mahon, Galway and Belfast.
Dominick D. Ryan, Galway.

4. *For the Diploma of Agriculture.*

Edmund Murphy, Cork.
Cornelius O'Keeffe, Cork.
John Watt Smyth, Belfast.

Note.—The name of Thomas K. Wheeler who passed for the Degree of M.D. on 14th October, 1851, and who received the same on the 5th March, 1852, appears to have been accidentally omitted in the Appendix XII. of the former Report.

VI.—RETURN of HONORS voted by the SENATE of the QUEEN'S UNIVERSITY in IRELAND to SUCCESSFUL CANDIDATES at the EXAMINATION ended on 13th October, 1852.

IN THE FACULTY OF MEDICINE.

1st Honor—An Exhibition, value £30, . .	Stephen Donegan.
2nd Honor—An Exhibition, value £20, . .	William Stewart.
3rd Honor—An Exhibition, value £15, . .	James Forsythe Patrick.
4th Honor—A Medal, value £5, . . .	Walter Humphries.

IN THE FACULTY OF ARTS.

Ancient Classical Languages and Literature.

Equal. Honor—An Exhibition, value £20,	Richard Blair Bagley.
Equal. Honor—An Exhibition, value £20,	James Wilson.
3rd Honor—A Medal, value £5,	James Mongan.

English Language and Literature.

1st Honor—An Exhibition, value £25,	Robert Dunlop.
2nd Honor—An Exhibition, value £10,	Richard Blair Bagley.
3rd Honor—A Medal, value £5,	James Mongan.

Modern Foreign Languages.

1st Honor—An Exhibition, value £25,	Richard Blair Bagley.
2nd Honor—A Medal, value £5,	Dominick Daly Ryan

Mathematics.

1st Honor—An Exhibition, value £25,	William Lupton.
2nd Honor—An Exhibition, value £15,	Mathias O'Keeffe.

Natural Philosophy.

1st Honor—An Exhibition, value £25,	Mathias O'Keeffe.
2nd Honor—A Medal, value £5,	William Lupton.

Chemistry, and Chemical Physics.

1st Honor—An Exhibition, value £25,	David Hill M'Murtry.
2nd Honor—A Medal, value £5,	Mathias O'Keeffe.

Natural Sciences.

1st Honor—An Exhibition, value £25,	Charles Winston Duggan.
2nd Honor—A Medal, value £5,	Boyle William Coghlan.

Logics and Metaphysics.

1st Honor—An Exhibition, value £25,	Robert Dunlop.
2nd Honor—A Medal, value £5,	Moffatt Jackson.

Jurisprudence and Political Economy.

1st Honor—An Exhibition, value £25,	Moffatt Jackson.
2nd Honor—A Medal, value £5,	Charles Winston Duggan.

Celtic Languages.

Honor—An Exhibition, value £25,	Boyle William Coghlan.

In the Department of Agriculture.

1st Honor—An Exhibition, value £25,	John W. Smyth.
2nd Honor—An Exhibition, value £15,	Edmund Murphy.

IN THE FACULTY OF LAW.

1st Honor—An Exhibition, value £25,	Thomas Dunbar Ingram.
2nd Honor—An Exhibition, value £15,	George Yeilding MacMahon.

VII.—REPORT of a PUBLIC MEETING of the QUEEN'S UNIVERSITY in IRELAND, held in St. Patrick's Hall, Dublin Castle, 14th October, 1853.

Shortly after three o'clock a procession entered the Hall in the following order:—

CANDIDATES
For the Diploma in Agriculture,
For the Diploma in Elementary Law,
For the Degree of Bachelor in Arts,
For the Degree of Doctor in Medicine.
Professors,
Examiners,
The Secretary,
The Senate,
The Vice-Chancellor.

Of the Senate there were present—the Right Hon. Maziere Brady, V.C., his Grace the Archbishop of Dublin, the Right Hon. Lord Chancellor Blackburne, Sir Philip Crampton, Bart., the Rev. Dr. Henry, Sir Robert Kane and Edward Berwick, Esq. (the Presidents of the Queen's Colleges), Richard Griffith, LL.B., D. J. Corrigan, M.D., Major Larcom, R.E., James Gibson, Esq., and Robert Ball, LL.D., Secretary.

Professors and Examiners present—John Ryall, LL.D., Charles M'Douall, A.M., Bunnell Lewis, A.M., W. Nesbitt, A.M., Rev. C. Darley, A.B., John Mulcahy, LL.D., John Stevelly, LL.D., Hugh Carlile, M.D., Benjamin Alcock, M.D., A. G. Melville, M.D., W. N. Hancock, LL.D., D. Caulfield Heron, A.B., G. Molyneux, A.M., Michael Barry, Esq., John Godwin, C.E., W. B. Blood, A.M., Edward Murphy, A.B., Thomas Skilling, Esq., John O'Donovan, LL.D., Owen Connellan, Esq., James L. Browne, M.D., D. Bullen, M.D., Horatio Stewart, M.D., A. Fleming, M.D., Simon M'Coy, F.R.C.S., Joshua Harvey, M.D., the Rev. William Fitzgerald, James Apjohn, M.D., George J. Allman, the Rev. J. G. Abeltshauser, LL.D., James A. Lawson, LL.D., Cathcart Lees, M.D., John Hamilton, F.R.C.S., Thomas M'Keever, M.D.

The various individuals of the procession having taken their places, the Vice-Chancellor, attended by the Secretary, proceeded to the entrance of the Hall to receive his Excellency the Lord Lieutenant. Having conducted him to his seat,

The VICE-CHANCELLOR, on taking the chair, addressed the Senate, and said—In the early part of the current year there were some degrees conferred on Students in this University, but those degrees were necessarily limited to one subject of study—namely, Medicine; because from the recent institution of the Colleges the Students were not enabled to complete that curriculum of study which had been assigned to them prior to their seeking the degree of Bachelor of Arts, or any higher degree in this University. We are now enabled, however, to complete the course of duty prescribed for us by the Charter granted by her Majesty, and to confer degrees and honors on the Students of these Colleges in all the branches of art and literature, for the cultivation of which those institutions were devised. I, therefore, take the liberty of opening what I may call the first public general meeting of this University, by making a few observations upon the purposes and objects of the institution. I cannot better do this than by pointing attention to the language of our Charter, which was granted by her Majesty in the fourteenth year of her reign. It is recited in that Charter that her Majesty had, in pursuance of the authority of Parliament, "Nominated, declared, and appointed certain Colleges for the promotion and encouragement of learning, in Belfast, Cork, and Galway, for Students in arts, law, physic, and other useful learning;" and that her Majesty had thought it fit and necessary, in order to render complete and satisfactory the course of education to be followed by the Students in those Colleges in the several faculties aforesaid, that provision should be made by which the Students would be enabled to obtain and receive the several degrees and distinctions in the aforesaid faculties, such as are granted and conferred in other Colleges and Universities in the kingdom of Great Britain and Ireland. With that view, and for those objects, this University has been established; and it is our province, under the direction of the Charter, to confer degrees and honors in arts, law, physic, and other useful learning, upon those Students from the Colleges who shall appear deserving of them on public examination. The degrees we are authorized to confer are those ordinarily conferred by other Colleges and Universities in the United Kingdom. They are well known to the world of science, and, I may say, to the public, and they require no explanation on my part. I shall only observe of them, that her Majesty, in the language of our Charter, has declared, that all persons who shall have completed their education in any of the Queen's Colleges, and shall have obtained such degrees in any of the several faculties of arts, medicine, and law, as shall be granted and conferred by the Chancellor and Senate of the aforesaid University, shall be fully possessed of all such rights, privileges, and immunities as belong to the several degrees granted by other universities and colleges, and shall be entitled to whatever rank and precedence attaches to the possessor of similar degrees granted by other universities. In addition to those degrees it seemed useful to the Senate to constitute a second class of honors, by conferring diplomas in several departments on Students deserving of them. These diplomas have been instituted in the faculty of law, and in engineering and agriculture. They are not titles which confer on the persons who obtain them any special rights or privileges in their profession, or any advancement in it; but I have no doubt that they will constitute, in the eyes of those who may be desirous of employing these individuals, a high recommendation, as well as a valid title in their possessors to the confidence and good reception of the public. In addition to those degrees and diplomas, we have established a scale of merit, by the institution of exhibitions for the candidates who may succeed upon examination for honors in the several departments. These consist in pecuniary exhibitions and medals, and are designed for Students who, having passed their examination for the degree or the diploma, shall be recommended by the examiners for competition in those higher branches which they are to be examined in before they can obtain those distinctions. Having, then, to confer degrees on Students from the three Colleges I have mentioned—having to confer diplomas, and having to institute a competition for those honorary exhibitions—it became our duty, in the terms of the Charter, to appoint fit Examiners, whose office it would be to report to us on the merits of the respective candidates. In fulfilling this part of our duty, we felt that we were discharging a public and an important trust, and that it behoved us to take care in the selection of Examiners that we should present to the world at large a guarantee that the Students of those Colleges, and the Graduates of this University, possessed acquirements commensurate to the high distinctions they had obtained. Accordingly, searching among the candidates who presented themselves to be Examiners in this University, and selecting from among them those who were most highly qualified in their respective departments, we did not confine the selection to any particular institution or college. Some were taken from the Queen's Colleges of Belfast, Cork, and Galway; some were taken from the Professors of Trinity College, Dublin; and some were selected from the general ranks of scientific and professional men; and I think I may venture to say, that in the list of Examiners thus selected there is presented to the public a host of names whose position and qualification show that they are capable of conducting an examination which should be highly appreciated by the public at large, and that the Students passing that examination richly deserve to be invested with the degrees and honors we are empowered to confer; at the same time

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it will satisfy the world, I am sure, of the perfect integrity with which the duties of such an examination have been discharged. In this course of selection we have but followed the example of our Chancellor, the Earl of Clarendon, who, when administering the affairs of this country, was called on to select Professors of the Queen's Colleges of Belfast, Cork, and Galway; he took pains, from all parts of the United Kingdom, to find out men the most eminent in science, men the best qualified in literary attainments, and men of the highest professional station, to undertake the duty of acting as Professors in those Colleges. Those institutions have been some few years in operation, and I think I may pass over this part of the subject very briefly by saying, that I believe they have deserved, and have received, in that respect, the confidence of the public. I believe that a course of instruction has been laid down in them, and has been pursued under the direction of the Professors, which is calculated to advance the learning, to stimulate the industry, and to develop the mental faculties of the Students under their direction. In addition to that course of study in these important institutions, let me briefly observe on a peculiar feature in them, which is deserving, I think, of special notice—I allude to that part of the arrangements of these Colleges which provides not merely for the literary, scientific, and professional education of the Students, but for the sedulous care of their morals and religious conduct. In these institutions the Students are not allowed at hazard to locate themselves where they please; in their respective cities, places of residence must be selected and licensed by the authorities, and, in addition to that, individuals must be appointed from the ministers of the various religious persuasions to which the Students belong, whose duty it is to attend to their moral and religious care. I propose to close this part of my observations by referring to the language of the statute passed for the direction of those institutions. Under the chapter which relates to the residence of the Students and the Deans of Residence, it is expressly declared, that her Majesty shall appoint Deans of Residence, who shall have the moral care and spiritual charge of the Students of their respective creeds residing in the licensed boarding-houses; and that the Deans of Residence shall have authority to visit the licensed boarding-houses in which the Students reside, for the purpose of affording religious instruction to such Students, and shall, also, have power to confer with their Bishops, Moderators, or other ecclesiastical authorities, to make regulations for the due observance of their religious duties, and to secure their regular attendance at divine worship; and those Deans are directed to report annually to the heads of the Colleges as to the condition of the Students in those particulars. And I am happy to say that the efforts which have been made have been well responded to on the part of the public, and that these Colleges, although but a few years in operation, present a fair array of numbers of Students frequenting their halls. I believe that prior to this examination upwards of four hundred Students were congregated in the three Colleges; but the number of Students in each College varies—being very large in Belfast, not so large in Cork, and smaller in Galway. Upon what this relative proportion may have depended I shall not take up your time by speculating; perhaps it may have arisen from the smallness of one of the cities, and other local causes. In attending those Colleges, among the difficulties which the Students have, in some instances, to encounter, is one which is occasioned by the peculiar nature of the institution, which requires continued residence on the part of the Students. It has seemed right, for directing the course of education in those Colleges, to require that the Students shall attend a regular course of lectures during certain portions of the year. This involves continued residence, and must entail upon some persons a degree of privation and expense which would have been avoided by residence in their own homes. But I think I may say, that such difficulties have been cheerfully and readily encountered; and that the Students, in their zeal and thirst for knowledge, have endured all those privations and difficulties, seeking only to attain that education which it is their highest ambition to possess. And I am happy to say, that this feeling is not confined to the class who are represented by the Students before us, but pervades even humbler ranks of society. In District Schools, of which some members of this Senate have official cognizance with myself, we have had accounts of the same endeavour to meet privation and difficulties in the pursuit of knowledge; we have instances of journeys daily undertaken by children, from considerable distances, to and from the schools, and sometimes of continued residence in the towns in which these schools are situated. The Students of the Queen's Colleges have thus shown their zealous determination to avail themselves to the utmost of the opportunities afforded to them and have yielded a steady obedience to the discipline of the Colleges. On that head I will only repeat what I was enabled to say when, accompanied by some of my colleagues, as Visitors of the Colleges, I concluded the visitation of them, and made some observations on what we had ascertained. I was enabled to say on that occasion, that though we had met with questions and doubts respecting the construction of the Charter and the laws of the institutions (and questions and doubts might well arise on such recent enactments), we have found no case anywhere of questions arising out of a breach of moral duty on the part of a single Student in the Colleges, and we found everywhere testimony borne, as well by the Deans of Residence as by the Professors, to the exemplary conduct of the Students, both in regard to their moral and religious duties and to their literary studies and scientific acquirements. The test of that moral and religious discipline will be found in the world into which the Students are now about to enter; and I have a very confident expectation that they will find in it no small aid to enable them to bear that world's vicissitudes, and encounter its dangers. The test of their literary acquirements exists in this institution, and is to be found in the examinations to which they have been subjected; and I believe that on the present occasion that test has been fairly and strictly applied, and has been borne by the Students with honour and with credit. Many of the reports of the Examiners have testified to us, in the strongest terms, as to their attainments and their mental powers; and but very few of them have failed in answering with that degree of general excellence in all the departments of Study which the Senate required, and which the Examiners, properly applied in adjudicating on their respective merits. These gentlemen I think, have, on their part, well and conscientiously discharged their duty. They have shown to the Students of the Colleges that the general standard of answering which has been required may be obtained by the vast majority of those who have to complete their course of education there; and they have shown to the public that the honors of this University will not be lightly or carelessly conferred. The answering of the Students, I understand, is deserving of great commendation in all departments, both in the examinations for degrees and in those for honors. In the latter, more than one instance occurred where the Examiners felt a difficulty in ascertaining the relative degree of merit of the candidates; and they earnestly besought us, if we could, and where we could, to enlarge the scale of merit, so as to enable them to award to each Student the full measure of his deserts. In assuming now the degrees about to be conferred on them, and in parting from this University, the Students, whom I congratulate on the successful result of their honourable competition, will bear with them the reflection, that to them, in a measure, individually is committed the honour and character of their Colleges and their University; and I have no doubt that they will not do any thing to reflect discredit upon the institutions to which they owe their introduction to the great world of literature and science. I confess I have a still higher aspiration in their behalf; I trust that not a few amongst them will take their places hereafter among the zealous promoters of knowledge, advancing in the onward course of science, and conducting the social and literary progress of the world. And if I may indulge, on such an occasion as this, in yet a higher speculation, may I not hope that among those now presented before us there may be found some whose future career, made brilliant by the discovery of some great mystery of science, the development of some secret of universal nature, or the exposition of some yet hidden function of the human frame, or made glorious by the bold and eloquent advocacy of the rights of the innocent, and the privileges of the free, may entitle them to a high place in that temple of immortal recollections which the consenting voice of nations has devoted to the benefactors of the human race. If such a man should be amongst them—and I trust there will be—I venture, with no light confidence, to say, that in the future record of his great existence not the least distinguished page will be that in which it shall be written that he laid the foundation of his excellence in the well directed studies of the College of his native province, and attained, with honourable distinction, his first degree in the Queen's University in Ireland. I have but to say further, that I am desired to express, on the part of the Chancellor of the University, the Earl of Clarendon, his deep regret at not having been able to come from England to preside on the present occasion. I have to express my own regret that it has not fallen to him to discharge the duty which would have been so much better performed by him, of developing the resources and the character of this institution. I have, however, to assure the Senate and the Presidents of the Colleges of that of which, I presume, they never had a doubt—namely, his Lordship's continued anxiety for their progress and their welfare, and his determination to forward that progress in every way his ability can at all enable him to do.

The Vice-Chancellor having then conferred the degrees and diplomas, and distributed the honors awarded by the Senate, addressed the Lord Lieutenant, and said, that he had been authorized to convey to his Excellency the thanks of the Senate of the Queen's University for his kindness in granting them the use of that noble, and, he would say, not inappropriate apartment, and for the high honour of his presence on that interesting occasion. His Excellency had personally visited the several Colleges upon whose Students they had that day conferred so many honorary rewards, and was aware of the purposes to which they were dedicated; and he would, therefore, detain him and the assembly no further than to say, that on every occasion when they required his concurrence in their proceedings, he (the Lord Lieutenant) had always been most willing to bestow it. The Charter of their University had placed the Lord Lieutenant of Ireland in such a position in connexion with it, as to require that all bye-laws, and other matters of a similar nature, should be submitted for his approval; and on some occasions, since his Excellency had come to Ireland, they had, in the discharge of their duty, to submit some alterations for his judgment and approbation. The Senate were happy to take that opportunity to acknowledge the great and prompt attention which his Excellency paid to their representations: and coming, as his lordship did, from a land which might boast of one of the greatest schools of medicine in the world, and was rich in the endowment of many learned and time-honoured universities, he trusted that his Excellency would regard the ceremonial of this day as not the least interesting of those public proceedings which he had been pleased to honour with his sanction and presence since his arrival in Ireland.

His Excellency then rose and said—Mr. Vice-Chancellor, and gentlemen, it is with great pleasure I receive the compliment you have just paid me on this, the first occasion on which the Queen's University of Ireland has come into active operation; and I would conceive it a great dereliction from my duty, if I had not been present at so interesting a ceremony as that which has been just brought to a close. At all times it is most gratifying to me to receive any mark of approbation from the people of Ireland; but it is particularly gratifying to me to receive any token of approbation from a body of men which numbers amongst them so many ornaments of the church, the bar, and the nobility of Ireland; and under the presidency of my immediate predecessor, one whose talents I admire, whose high character I respect, and whose personal friendship, I trust, I possess. It is most satisfactory to hear what we have heard from the Vice-Chancellor to-day, of the success which has attended these Colleges—a success which (making allowance for the difficulties that surround every new undertaking, and the dangers with which these institutions have been in some degree assailed) I will not call complete, but which is still very great, if we measure it with the success that has attended other institutions of the same sort, and at the same period of their existence. You, Mr. Vice Chancellor, have rightly said that I have personally inspected the three Colleges, upon whose Students we have been conferring honors on the present occasion. During the short time that has elapsed since I came to Ireland I have had an opportunity of seeing them all. I have paid a visit to each of the three Colleges which constitute this University, and which are, as it were, the limbs to which the University supplies additional vitality: and I can assure you, that I admired every arrangement I saw, and the tasteful manner in which those Colleges have been built. And now, gentlemen, let me address a few words to you who have gained these honors to-day. Under the excellent instruction which you have received, by the exercise of those talents with which you have been blessed, and by a steady application to your studies, you have earned for yourselves the approbation of your instructors, the esteem of your fellow-students, and the applause of this distinguished assembly. Continue, then, in that honourable course which you have so auspiciously begun. You are about to embark in that line of life which your various positions, or the natural bent of your minds, may lead you to adopt, and to struggle for independence, for competence, or perhaps for fame. In this free country there is no honour in the various learned professions, at the bar, or even in the senate, which may not be open to you. So far your destinies are in your own power; but remember that no talent will avail you if it be not coupled with good conduct, with temperance, with integrity, with religion. Serve God, honour your Queen, obey the laws of your country, and love your neighbour without distinction of creed or opinion, and you will prove yourselves worthy of the land which has given you birth, and of the magnificent institutions which have fostered you. I wish you all health and happiness. I congratulate you on the progress you have made, and I trust that success will attend your future career.

VIII.

On the 20th of July, 1852, the Senate resolved that—

The course of lectures on Practical Anatomy mentioned in the Ordinances is understood to comprise attendance on a course of Anatomical Demonstrations, accompanied with dissections by the Student.

26th February, 1853, resolved—

That by attendance on Practical Pharmacy it is understood, that the candidate shall produce evidence of his having been engaged for the time specified in compounding medicine, either in the establishment of a legally qualified apothecary, or in the compounding department of some recognised hospital, under the superintendence of the apothecary of the institution.

Returns of Students attending the following Medical Schools and Hospitals have been received during the period of this Report:—

MEDICAL SCHOOLS OF—	HOSPITALS.	LYING-IN HOSPITALS.
Trinity College.	Jervis street.	Rotunda.
Queen's College, Belfast.	City of Dublin.	Coombe.
Queen's College, Cork.	House of Industry.	Cork.
Queen's College, Galway.	St. Vincent's.	
Royal College of Surgeons.	S. and N. Infirmary, Cork.	
Apothecaries' Hall.	Meath.	
Edinburgh Surgeons' Hall.	Belfast.	
Carmichael School.	Mercer's.	
Original, Peter-street.	Galway Infirmary.	
Dublin, Peter-street.		

In reference to the rule under which the foregoing Returns were supplied, the following notice has been extensively circulated:—

As part of the qualification for examination for Medical Degrees in the Queen's University, the Senate recognise the certificates of the Medical Lecturers in the various Universities and Chartered Institutions of the United Kingdom, and also of the Lecturers in certain Medical Schools and Hospitals, who having applied for recognition, have shown their fitness for it. But it is to be observed, that by the Medical Ordinance of the Queen's University which came into force on the 1st of October, 1852, it is strictly required that all recognised Lecturers and Clinical Lecturers, without exception, shall furnish to the Secretary of the University, a return, in a prescribed form, of the Students attending their lectures, otherwise their certificates will not be received. Students who purport to present themselves for examination for Medical Degrees in the Queen's University should, therefore, ascertain that their names are thus returned for any Medical Lectures they may attend, lest in consequence of such returns not having been supplied, their qualifications should be deemed insufficient when they so present themselves; and Lecturers who are willing to make the required Returns, and who have not received the necessary forms through the Registrars of the respective Institutions, should cause application to be made for them.

IX.—SUPPLEMENTARY ORDINANCE.

By the Charter of the Queen's University in Ireland it is ordained, that it shall be lawful for the Senate of the University, with the approbation of the Lord Lieutenant, to make such alterations in the Course of Studies prescribed in the Ordinances of the 30th of June, 1850, as shall from time to time seem meet. In the directions given in these Ordinances, for the courses of study to be pursued by Law Students in their fourth year, it appears that no provision was made in respect to any course of Colonial and International Law, although it has been stated to the Senate that it was the intention of the Presidents of the three Queen's Colleges, by whom the Ordinances were prepared, that such a course should have been prescribed with that of Constitutional Law, but that by some inadvertence that course was not inserted in the Ordinances; and as it is now deemed necessary and advisable to supply this omission, it is the opinion of the Senate that the words *Colonial and International* should be inserted in the directions for the Studies of Law Students in their fourth year, between the words "Constitutional" and "Law" in the Ordinances above referred to.

By Order,

ROBERT BALL, LL.D.,
Secretary.

EGLINTON AND WINTON.

I, Archibald William, Earl of Eglinton and Winton, Lord Lieutenant General and General Governor of Ireland, do hereby approve of the amendment of the Ordinances of the 30th of June, 1850, as above suggested by the Senate of the Queen's University in Ireland.

By His Excellency's Command,
JOHN WYNNE.

Dublin Castle, 14th December, 1852.

X.—AN ESTIMATE of the sum that will probably be required to defray the Expenses of the QUEEN'S UNIVERSITY in IRELAND, for the year ending 31st March, 1854.

One Thousand Six Hundred and Eighty-one Pounds.

SALARIES OF EXAMINERS.	£	s.	d.
1. in Greek,	100	0	0
2. in Latin,	100	0	0
3. in Modern Languages,	40	0	0
4. in Celtic languages,	20	0	0
5. in Mathematics,	100	0	0
6. in Logic and Metaphysics,	50	0	0
7. in Chemistry,	100	0	0
8. in Zoology and Botany,	75	0	0
9. in Natural Philosophy,	100	0	0
10. in English Literature,	40	0	0
11. in Mineralogy, Geology, and Physical Geography,	50	0	0
12. in Jurisprudence and Political Economy.	40	0	0
13. in Theory and Practice of Medicine,	100	0	0
14. in Theory and Practice of Surgery,	100	0	0
15. in Materia Medica, Pharmacy, and Medical Jurisprudence,	100	0	0
16. in Anatomy, Physiology, and Comparative Anatomy,	100	0	0
17. in Midwifery, and Diseases of Women and Children,	75	0	0
18. in Engineering and Surveying,	50	0	0
19. in Agriculture and Farm Management,	50	0	0
20. in Law,	40	0	0
	1,430	0	0
OFFICE CHARGES.			
Secretary's Salary,	250	0	0
Incidentals, Office Expenses, Postage, Messengers, Advertisements, &c.	180	0	0
Exhibitions, Prizes, Medals,	500	0	0
	2,360	0	0
Probable Balance of last year's Grant,	600	0	0
Probable amount of Fees (being the sum received 1852),	79	0	0
	679	0	0
TOTAL SUM required in addition to Balance of former Grant,	£1,681	0	0

XI.—ORDINANCES regulating the Conditions, Forms, and Subjects of the Degree, Diploma, and Honor Examinations for the Year 1853.

FACULTY OF ARTS.

Examination for the Degree of Bachelor of Arts, and for Honors in that Faculty.

The Examinations of Candidates for the Degree of Bachelor of Arts will commence on Tuesday, the 20th day of September, 1853, and be continued on the following days.

The Examination for the Degree, and the Examination for Honors, will be distinct. The Examination for Honors will be held immediately subsequent to the Degree Examination.

Every Candidate for the Degree of Bachelor of Arts shall deposit with the Secretary to the University, on or before the 1st day of September, Certificates according to the Form A.*

Every Candidate must deposit with the Secretary, prior to the day of Examination, the fee of £1 for the Degree.

The Examinations for the Degree of B.A. will be conducted principally by printed papers, to which written answers will be required. The Examiners may, however, add such *viva voce* examination as they shall deem necessary.

Every Candidate will be required to answer for his Degree in the subjects included in the Group A. of the following table, and also to answer in the subjects of at least one of the three groups of subjects marked B, C, D, respectively; the Candidate being allowed to select from the three groups that containing the subjects in which he may desire to be examined.

1. GROUP A.—REQUIRED FROM ALL CANDIDATES.

The Latin Language and Literature
The Greek Language and Literature
A Modern Foreign Language
Mathematics

2. Special Groups in at least one of which the Candidates must answer.

GROUP B.

English Philology and Criticism.
Logic.
Metaphysics, or (in place of Metaphysics, at the election of the Candidate), Political Economy and Jurisprudence

GROUP C.

Chemistry
Natural Philosophy.

GROUP D.

Zoology
Botany.
Physical Geography.

Regarding the mode of examination, the following regulations will be observed:—

1. In the *Latin and Greek Languages* every Candidate will be allowed to select in each language some two works of the following Classical Authors in which he may desire to be examined:—

Virgil—Æneid, first six Books.
Horace—Satires, Epistles, and Art of Poetry.
Sallust
Terence—Adelphi and Phormio.
Cicero—Orations against Catiline.
Tacitus—Agricola and de moribus Germanorum.
Xenophon—Anabasis, Books 2, 3.
Homer—Iliad, four first Books.
Herodotus—Book 1.
Æschylus—Prometheus Vinctus.
Euripides—Medea.
Lucian—Walker's Selections.

2. In Modern Languages the Candidate will be allowed to select for his examination the French, the German, or the Italian Language, and will be required to translate from some two Modern Authors, in the language selected, and to translate an exercise from English into the same language.

3. In Mathematics the Candidates will be examined in—

The 1st, 2nd, 3rd, 4th, and 6th Books of Euclid, and in the Definitions of the 5th Book.
Arithmetic, including Vulgar and Decimal Fractions.
Algebra, including the usual rules, to the end of Quadratic Equations, with the Nature and Use of Logarithms
Plane Trigonometry.

In the Examination in Natural Philosophy the Candidate will be expected to be able to give such mathematical proofs in reference to any question proposed as may be supplied by the foregoing mathematical course.

In the Examinations upon the subjects of the Groups selected by the Candidates, the object of the Examiner will be to ascertain the extent and accuracy of the general knowledge of each subject possessed by the Candidate.

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* The various forms referred to in this Ordinance are Schedules of the several Certificates required by the regulations for study.

The names of the Candidates admitted to Degrees will be published in alphabetical order: those obtaining Honors, in the order of merit.

Honor Examinations in Arts.

Honors will be awarded by the Senate of the Queen's University in Ireland for distinguished proficiency in each of the principal branches of Literature and Science included in the Undergraduate course.

Each University Examiner, in reporting to the Secretary the results of the Degree Examination, shall furnish a list of the Students whom he recommends as entitled to present themselves to be Examined for Honors, in the course in which the subject in which he has examined is comprised, and no other Students shall be so entitled, except in the Examination for Honors in the Celtic Languages, as hereinafter mentioned.

The Examination for Honors will be by printed papers.

Candidates may be examined for Honors in more than one department.

Candidates must have previously passed the Degree Examination.

In no case will Honors in any department be awarded by the Senate, except for absolute merit, as reported by the Examiners, and the Senate reserves to itself the power, in case of the absence of Candidates of sufficient merit in any branch, to withhold all, or any of the Honors in that branch, and to employ the amount to increase the number of Honors in any other branch in which it may appear to the Senate desirable so to do, from superior merit shown by Candidates in such department.

The special courses and regulations of the Honor branches are as follows:—

1.—Ancient Classical Languages and Literature.

1st Honor—An Exhibition, value £15, and a Gold Medal.
2nd Honor—An Exhibition, value £10, and a Gold Medal.

The Candidates for Classical Honors will be examined in the following course:—

Horace—Odes, Satires and Epistles.
Virgil—Æneid, Books 1 to 8.
Cicero—Tusculan Disputations.
De Oratore.
Actiones Verrinæ
Juvenal—Satires, 1, 3, 8, 13, 14.
Tacitus—Annals, Book 1
Histories, Book 1.
Livy—Books 4 and 22.
Terence—Adelphi and Phormio.
Plato—Apologia and Crito.
Thucydides, Book 1
Herodotus, Book 1.
Æschylus—Prometheus Vinctus.
Sophocles—Œdipus Coloneus.
Homer—Iliad, Books 20 to 24.
Odyssey, Books 12 to 18.
Euripides—Medea, Alcestis, and Orestes
Greek and Latin Composition in Prose and Verse.

2.—English Language and Literature.

1st Honor—An Exhibition, value £15, and a Gold Medal.
2nd Honor—An Exhibition, value £5, and a Gold Medal.

The Candidates will be examined in the History, Philology, and Grammar of the English Language, at various periods, and in the principles of Literary and Grammatical Criticism as exemplified in application to various authors in English Literature.

3.—Modern Foreign Languages.

1st Honor—An Exhibition, value £15, and a Gold Medal.
2nd Honor—An Exhibition, value £5, and a Gold Medal

Candidates will be examined in the History, Philology, and Grammar of the following modern Languages, viz.:—The French or German, or the French and German, or the French, German, and Italian, as the Candidate may think proper. He will be required also to translate from English into the Language or Languages selected by him for Examination.

4.—Mathematics.

1st Honor—An Exhibition, value £15, and a Gold Medal.
2nd Honor—An Exhibition, value £10, and a Gold Medal.
3rd Honor—A Gold Medal

The Candidates will be examined in the following course:—

Euclid—Books, 1, 2, 3, 4, 5, 6.
Algebra, including its Application to Questions of Probabilities and Annuities.
The Theory and Solution of the Higher Equations.
Plane Trigonometry, including Demoivre's Theorem and its Applications, and the Construction and Use of Trigonometrical Tables.
Conic Sections.

Differential and Integral Calculus.
Differential Equations.
Co-ordinate Geometry, of Two and of Three Dimensions.
The First Three Sections of the First Book of the Principia.
Spherical Trigonometry and its Application to Astronomy
Theory of Logarithms.—Construction and Use of Logarithmic Tables.

5.—Natural Philosophy.

1st Honor—An Exhibition, value £15, and a Gold Medal.
2nd Honor—An Exhibition, value £5, and a Gold Medal.

The subjects of Examination will be—

Mechanics,
Optics, Geometrical and Physical,
Astronomy, Plane and Physical,

and will be expected to receive full mathematical treatment.

6.—Chemistry and Chemical Physics.

1st Honor—An Exhibition, value £15, and a Gold Medal.
2nd Honor—An Exhibition, value £5, and a Gold Medal.

The subjects of Examination will be—

Heat.
Electricity.
Crystallography.
Laws of Combination and Constitution.
Inorganic and Organic Chemistry.

7.—Natural Sciences.

1st Honor—An Exhibition, value £15, and a Gold Medal.
2nd Honor—An Exhibition, value £5, and a Gold Medal.

The subjects of Examination will be—

The Principles of Animal Structure and Classification.
The Principles of Vegetable Structure and Classification.
The Elements of Geology and Physical Geography.
The Laws of Geographical Distribution of Plants and Animals.

8.—Logics and Metaphysics.

Honor—An Exhibition, value £15, and a Gold Medal.
2nd Honor—An Exhibition, value £5, and a Gold Medal.

The Examination will be conducted in accordance with the Courses of Instruction in Logics and Metaphysics given in the Queen's Colleges.

9.—Jurisprudence and Political Economy.

Honor—An Exhibition, value £15, and a Gold Medal
2nd Honor—An Exhibition, value £5, and a Gold Medal.

The Examination will be conducted in accordance with the Courses of Instruction in Jurisprudence and in Political Economy given in the Queen's Colleges.

10.—Celtic Languages.

Honor—An Exhibition, value £10, and a Gold Medal.

The Examination will include the Critical History and Philology of the Hiberno-Celtic Language, with translations of passages from authors of different periods, and re-translations from English.

Note.—Any Candidate having passed the Degree Examination may present himself for Examination for Honor in this department, without the recommendation of an Examiner, it not being included in any of the subjects specified in the several Groups above prescribed for the general Examination.

Regulations for the Examination of Candidates for the Degree of A.M.

The Examination for the Degree of Master of Arts will commence on Tuesday, the 20th September, and be continued on the following days.

Every Candidate will be required to furnish to the Secretary of the University, on or before the first September, a Certificate from the Council of some one of the Queen's Colleges, according to a prescribed form, B, of his having attended for at least two terms, subsequent to his having received the Bachelor's degree, a Course of Lectures on some one of the subjects of the course of study in which he may have selected to proceed for his degree, or so much of said Course as he may have been enabled by the regulations of his College to attend subsequent to the Ordinance of the 12th of February, 1853, if an A.B. of 1852.

The Candidates are required to notify to the Secretary of the University on or before the 1st September, the Course of study in which they desire to proceed for their degree.

A Candidate may proceed to obtain his Masters' degree by examination in any one of the four following Courses of Study, viz. :—

1.—*Classics*, which shall be considered as including :—
  The Greek and Latin Classic Authors; Prose Composition in Greek, Latin, and English; a modern Foreign Language.
2.—English Philology and Criticism.
  Logic.

Metaphysics, or (in the place of Metaphysics, at the election of the Candidate) Political Economy and Jurisprudence.

3.—*Mathematical and Physical Science*, which shall be considered as including the following subjects :—

Algebra, including the theory of Equations.
Analytical Geometry.
Trigonometry, Plane and Spherical.
The Differential and Integral Calculus.
Differential Equations.
Theory of Probabilities.
Statics and Dynamics.
Hydrostatics.
Hydraulics and Pneumatics.
Heat.
Electricity and Magnetism.
Optics.
Plane Astronomy.
Physical Astronomy.

4.—*Experimental and Natural Sciences*, which shall be considered as including the following subjects :—

Experimental Physics
Laws of Chemical constitution and combination.
General properties and preparation of Organic and Inorganic bodies.
Structure, Functions, and Classification of Animals.
Structure, Functions, and Classification of Vegetables.
Zoological and Botanical Geography
Elements of General Geology and Palæontology.
Elements of Physical Geometry.
Elements of Crystallography and Mineralogy.

An Exhibition of £15, with a Gold Medal, will be conferred by the Senate, upon each Candidate recommended by the Examiners as *possessing sufficient merit*, who shall obtain the first place in any of the above four Courses of Study. No separate Examination required for these honors.

The degrees and honors will be conferred at the public meeting of the University, after the close of the examinations.

Every Candidate must deposit with the Secretary, prior to the day of Examination, the fee of £3 for the degree.

The Examination for the degree of A.M. will be conducted principally by printed papers, to which written answers will be required. The Examiners may, however, add such *viva voce* examination as they shall deem necessary.

Regulations for the Examination of Candidates for the Diploma of Civil Engineer or of Agriculturist.

The Examination of Candidates for the Diploma of Civil Engineer or of Agriculturist will commence on the 20th of September, and be continued on the following days.

The examination for Diploma, and the Examination for Honors, will be distinct, and will be by printed papers, the Examiners having power to add such *viva voce* Examination for the Diploma as may appear necessary.

Every Candidate shall deposit with the Secretary to the University, on or before the 1st of September, Certificates, according to the Forms, as the case may be, C or D, or C^1, or D^1.

Prior to Examination for Diploma, the Candidate must have deposited with the Secretary to the University the prescribed fee of £3 for Engineering, or £2 for Agricultural Diploma.

The names of persons obtaining Diplomas will be published in alphabetical order; the names of those obtaining Honors will be published in order of merit in each class.

Every Candidate will be required to answer in all the subjects contained in the Course prescribed for the Diploma to which he aspires.

For the Diploma Examination, the following rules will be observed :—

1.—ENGINEERING DIPLOMA.

1.—The Mathematical Examination of Engineering Candidates will include—

Arithmetic, including Vulgar and Decimal Fractions.
Algebra, to the end of Quadratic Equations
Euclid, 1st, 2nd, 3rd, 4th, 5th, and 6th Books.
Mensuration.
Plane Trigonometry.
Elements of Spherical Trigonometry.
Construction and use of Logarithmic and Trigonometrical Tables.
Conic Sections.
Descriptive Geometry.

2.—The Examination in Natural Philosophy, Chemistry, Mineralogy, and Geology, will be conducted with special reference to Engineering objects. In Natural Philosophy the Candidate will be required to supply in his answers all such mathematical proofs as may be supplied by the Mathematical Course above specified.

Every Engineering Candidate will be required to produce one of his own drawings of each of the following kinds, viz :—Bridges and Roads, accompanied by Plans and Sections;

also Topographical Maps, with the field-books and observations from which the whole were constructed. Candidates are recommended to produce Architectural Drawings and Drawings of Machinery. These Drawings must be certified by the Teacher of Drawing in the College as having been *bona fide* executed by the Candidate.

Candidates will be furnished with data for a project of Constructive Engineering or Architecture, and will be required to furnish detailed propositions for carrying same into effect, with estimates and specifications.

Every Engineering Candidate must provide a certificate of having been engaged in obtaining a practical knowledge of Engineering under the direction of a Practising Engineer, for the term required by the Ordinance under which he proceeds for his Diploma.

2.—AGRICULTURAL DIPLOMA.

The Examination will include—

Arithmetic, with Vulgar and Decimal Fractions.
Mensuration, Practically Treated.
Principles of Natural Philosophy (without Mathematical proof)

And all the other subjects of the Course for Agricultural Diploma specified in the Ordinances, considered specially in their Applications to Agriculture and Land Improvement.

The Candidate is recommended to produce any Surveys or Maps, with the Field Books from which they were constructed, which he may have prepared during his term of Instruction in Surveying.

The Candidate will be furnished with data for a project of Farm Improvement, and required to furnish a detailed proposition for carrying the same into effect, with estimates and specifications

The Candidate will be required to exhibit and explain a plan previously arranged by him for keeping Farm Accounts.

Honor Examination in the Department of Engineering and Agriculture.

The Honors to be competed for by Candidates who shall have obtained the Diploma of Civil Engineer are—

First Honor—An Exhibition, value £15, and a Gold Medal.
Second Honor—An Exhibition, value £10, and a Gold Medal.
Third Honor—An Exhibition, value £5, and a Gold Medal

The Honor Examination will be conducted in similar manner to the Diploma Examination, but the subjects will receive a more profound treatment.

The Examination in Mathematics will include the following additional Course:—

The Higher Algebra.
Differential and Integral Calculus, Differential Equations.
Co-ordinate Geometry of two and of three dimensions.
Spherical Trigonometry, and its applications to Astronomy and Geodesy.
The First three Sections of the First Book of the Principia.

In the Examination in Natural Philosophy and in the theory and construction of Machines, the subjects will be mathematically treated.

The Honors to be competed for by Candidates for the Diploma of Agriculture are—

First Honor—An Exhibition, value £15, and a Gold Medal.
Second Honor—An Exhibition, value £10, and a Gold Medal.
Third Honor—An Exhibition, value £5, and a Gold Medal.

The Examination for Honors will be in the same subjects as for the Diploma, and will be similarly conducted, but the subjects will receive a more profound and extensive treatment.

The Honors in Engineering and Agriculture will not be conferred except on evidence of absolute merit; and in case of absence of satisfactory merit, the Senate reserves to itself the power of withholding the Honor, and of applying the amount to departments where the manifestation of superior merit makes it desirable that the Honors should be increased.

FACULTY OF LAW.

Regulations for the Examination of Candidates for the Diploma of Elementary Law.

The Examination of Candidates for the Diploma of Elementary Law will commence on the 20th of September, or such day after as may not interfere with the General Examinations, and be continued on the following days.

The Examination for Diploma, and the Examination for Honors, will be distinct, and will be by printed Papers, the Examiners having power to add such *viva voce* Examination for Diploma as may appear necessary.

Every Candidate shall deposit with the Secretary to the University, on or before the 1st of September, Certificates according to the Form E.

Prior to Examination for Diploma the Candidate must have deposited with the Secretary to the University the prescribed fee of £2 for the Diploma.

The names of persons obtaining Diplomas of Elementary Law will be published in alphabetical order; the names of those obtaining Honors will be published in order of merit.

Every Candidate will be required to answer in all the subjects contained in the Course prescribed for the Diploma to which he aspires.

1st Honor Examination in the Faculty of Law.

First Honor—An Exhibition, value £10, and a Gold Medal.
Second Honor—An Exhibition, value £5, and a Gold Medal

The Honor Examination will be conducted similarly to the Diploma Examination, but the several subjects will receive a more profound and extensive discussion.

EXAMINATION FOR THE DEGREE OF LL.B.

The Examination for the Degree of LL.B. will commence on the 20th of September, or such subsequent day as may not interfere with the general Examinations.

The Examination for the Degree, and the Examination for Honors, will be distinct, and will be by printed papers, the Examiners having power to add such *viva voce* Examination for the Degree as may appear necessary.

Every Candidate shall deposit with the Secretary to the University, on or before the 1st of September, Certificates according to the Form F.

Prior to Examination for the Degree the Candidate must have deposited with the Secretary to the University the prescribed fee of £1 for the Diploma.

The names of persons obtaining the Degree of LL.B. will be published in alphabetical order; the names of those obtaining Honors will be published in order of merit.

Every Candidate will be required to answer in all the subjects contained in the Course prescribed for the Degree to which he aspires.

2nd Honor Examination in the Faculty of Law.

First Honor—An Exhibition, value £15, and a Gold Medal
Second Honor—An Exhibition, value £10, and a Gold Medal.

The Honor Examination will be conducted similarly to the Degree Examination, but the several subjects will receive a more profound and extensive discussion.

The Examination of Candidates for Honors in the Engineering, Agricultural, and Law Departments, will be confined to those who shall be recommended for such Examination, by the respective Examiners in each Department, as in the case of Candidates for Degrees in the Faculty of Arts.

Faculty of Medicine.

Regulations for the Examination of Candidates for Degrees and Honors.

The Examination of Candidates for the Degree of Doctor of Medicine will commence on the 20th day of September, 1852, and will be continued on the following days.

The Examination for the Degree and the Examination for Honors will be distinct; that for Honors will be held immediately subsequent to the Degree Examination.

Every Candidate for the Degree of Doctor of Medicine shall deposit with the Secretary to the University, on or before the 1st day of September, Certificates according to the Schedule G.

Every Candidate for the Degree of M.D. must deposit with the Secretary, prior to the day of Examination, the fee of £5 for the Degree.

The Candidate will be required to answer in all the subjects of the course prescribed for the Degree of M.D. by the Ordinance of 30th June, 1850.

The Examinations will be conducted by printed Papers, to which written answers shall be given, but the Examiners shall also be at liberty to add such *viva voce* examination as they may deem necessary.

The first Examination under the Ordinance of the 15th of March, 1852, will (should Candidates offer) be concurrent with the Examinations under the original Ordinance, and will be conducted in the same way. Candidates shall furnish Certificates, according to the Form G^1., for this Examination on or before the 1st of September.

HONOR EXAMINATION IN THE FACULTY OF MEDICINE.

First Honor—An Exhibition, value £20, and a Gold Medal.
Second Honor—An Exhibition, value £15, and a Gold Medal.
Third Honor—An Exhibition, value £5, and a Gold Medal
Fourth Honor—A Gold Medal.

The Honor Examination will embrace all the subjects of the Degree Examination, but the several subjects will receive a more profound and extensive treatment.

Candidates for Honors must previously have passed the Degree Examination.

The Examiners in reporting to the Secretary the results of the Degree Examination, shall furnish a list of the Students whom they recommend as entitled to present themselves to be examined for Honors in the Faculty of Medicine, and no other Student shall be so entitled.

The names of persons obtaining Degrees will be published in alphabetical order, and the names of those obtaining Honors will be published in the order of merit.

By Order,
Robert Ball, ll.d., *Secretary.*

The Queen's University, 26th February, 1853.

St. Germans.

I, **Edward Granville, Earl of St. Germans**, Lord Lieutenant General and General Governor of Ireland, do hereby approve of the foregoing Ordinance.

By his Excellency's Command,
Thomas A. Larcom.

Dublin Castle, 15th March, 1853.

XII.—CASH ACCOUNT of the QUEEN'S UNIVERSITY, for the year ending 20th June, 1853.

Dr.	£	*s.*	*d.*	*Cr.*	£	*s.*	*d.*
To Balance of Account, June, 1852, ...	857	1	5	By Salaries of Examiners and Secretary, . . .	1,415	0	0
„ Parliamentary Grant, 1852, 1853, ...	1,710	0	0	„ Incidental Expenses, .	93	10	10
„ Fees on Degrees and Diplomas, . . .	79	0	0	„ Medals and Exhibitions, .	506	16	6
				„ Balance in Bank, . .	630	14	1
Total Charge, . .	2,646	1	5	Total Discharge, .	2,646	1	5

XIII.—EXAMINERS, elected 16th July, 1853.

Greek.—Charles Mac Douall, A.M., Professor, Q.C., Belfast.

Latin.—Bunnell Lewis, A.M., Professor, Q.C., Cork.

English Literature.—George L. Craik, A.M., Professor, Q.C., Belfast.

Logic and Metaphysics.—The Rev. William Fitzgerald, D.D., Vicar of St. Anne's.

Mathematics.—John Mulcahy, LL.D., Professor, Q.C., Galway.

Natural Philosophy.—George F. Shaw, F.T.C.D., Professor, Q.C., Cork.

Chemistry.—Edmund Ronalds, Ph. D., Professor, Q.C., Galway.

Anatomy and Physiology.—Charles Croker King, M.D., F.R.C.S.I., M.R.I.A., Professor, Q.C., Galway.

Zoology and Botany.—George Dickie, M.D., Professor, Q.C., Belfast.

Modern Languages.—The Rev. I. G. Abeltshauser, LL.D., Professor, T.C.D.

Mineralogy Geology, and Physical Geography.—Frederick M'Coy, F.G.S.L., Hon. F.C.P.S., Professor, Q.C., Belfast.

Jurisprudence and Political Economy.—D. Caulfield Heron, A.D., Professor, Q.C., Galway.

Law.—James A. Lawson, LL.D., Barrister-at-Law.

Civil Engineering and Surveying.—Samuel Downing, A.M., Professor of Engineering, T.C.D.

Agriculture.—Edmund Murphy, A.B., Professor, Q.C., Cork.

Celtic Languages.—John O'Donovan, LL.D., M.R.I.A., Professor, Q.C., Belfast.

Medicine.—John Banks, M.D., T.C.D., M.R.I.A., King's Professor of Physic.

Surgery.—James S. Hughes, M.D., Fellow and Member of Council of the Royal College of Surgeons.

Materia Medica, Pharmacy, and Medical Jurisprudence.—Aquilla Smith, M.D., M.R.I.A., V.P., and Censor, College of Physicians, Examiner in Materia Medica and Pharmacy, T.C.D.

Midwifery, and Diseases of Women and Children.—Henry L. Dwyer, A.M., M.D., Fellow of the College of Physicians.

XIV.—MEETINGS of the SENATE for the period commencing 19th June, 1852, in the office of the University, Dublin Castle.

19th June, 1852.

Present: The Right Honourable Maziere Brady, *Vice-Chancellor.*
His Grace Richard Archbishop of Dublin.
Sir Philip Crampton, Bart.
The President of the Queen's College, Cork.
The President of the Queen's College, Galway.
Dominic J. Corrigan, M.D.

Robert Ball, LL.D., *Secretary.*

21st June, 1852.—Stated Meeting.

Present: The Right Honourable Maziere Brady, *Vice-Chancellor.*
The Right Honourable Lord Chancellor Blackburne.
The President of the Queen's College, Cork.
The President of the Queen's College, Galway.
Dominic J. Corrigan, M.D.

Robert Ball, LL.D., *Secretary.*

17th July, 1852.

Present: The Right Honourable Maziere Brady, *Vice-Chancellor.*
His Grace the Archbishop of Dublin.
The Right Honourable Lord Chancellor Blackburne.
Sir Philip Crampton, Bart.
The Vice-President of the Queen's College, Belfast
The President of the Queen's College, Cork.
The President of the Queen's College, Galway.
Richard Griffith, LL.D.
Dominic J. Corrigan, M.D.
Major Thomas A. Larcom, R.E.

Robert Ball, LL.D., *Secretary.*

20th July, 1852.

Present: The Right Honourable Maziere Brady, *Vice-Chancellor.*
Sir Philip Crampton, Bart.
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
The President of the Queen's College, Galway.
Dominic J. Corrigan, M.D.
Major Thomas A. Larcom, R.E.

Robert Ball, LL.D., *Secretary.*

15th September, 1852.

Present: The Right Honourable Maziere Brady, *Vice-Chancellor.*
Sir Philip Crampton, Bart.
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
Dominic J. Corrigan, M.D.
James Gibson, A.M., Barrister-at-Law.

Robert Ball, LL.D., *Secretary.*

18th September, 1852.

Present: The Right Honourable Maziere Brady, *Vice-Chancellor.*
Sir Philip Crampton, Bart.
The President of the Queen's College, Cork.
Major Thomas A. Larcom, R.E.
James Gibson, A.M., Barrister-at-Law.

Robert Ball, LL.D., *Secretary.*

29th September, 1852.

Present: The Right Honourable Maziere Brady, *Vice-Chancellor.*
Sir Philip Crampton, Bart.
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
Major Thomas A. Larcom, R.E.

Robert Ball, LL.D., *Secretary.*

13th October, 1852.

Present: The Right Honourable Maziere Brady, *Vice-Chancellor.*
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
The President of the Queen's College, Galway.
Dominic J. Corrigan, M.D.
Major Thomas A. Larcom, R.E.
James Gibson, A.M., Barrister-at-Law.

Robert Ball, LL.D., *Secretary.*

14th October.—Public Meeting in St. Patrick's Hall.

Present: The Right Honourable Maziere Brady, *Vice-Chancellor.*
His Grace Richard Archbishop of Dublin.
The Right Honourable Lord Chancellor Blackburne.
Sir Philip Crampton, Bart.
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
The President of the Queen's College, Galway.
Richard Griffith, LL.D.
Dominic J. Corrigan, M.D.
Major Thomas A. Larcom, R.E.
James Gibson, A.M., Barrister-at-Law.

Robert Ball, LL.D., *Secretary.*

23rd October, 1852.—*Meeting in the Office of the University.*

Present: The Right Honourable Maziere Brady, *Vice-Chancellor.*
His Grace Richard Archbishop of Dublin.
The Right Honourable Lord Chief Baron Pigot.
The President of the Queen's College, Cork.
Dominic J. Corrigan, M.D.
Major Thomas A. Larcom, R.E.
James Gibson, A.M., Barrister-at-Law.

Robert Ball, LL.D., *Secretary.*

20th November, 1852.

Present: The Right Honourable Maziere Brady, *Vice-Chancellor.*
The Right Honourable Lord Chief Baron Pigot.
Sir Philip Crampton, Bart.
The President of the Queen's College, Belfast.
Dominic J. Corrigan, M.D.
Major Thomas A. Larcom, R.E.

Robert Ball, LL.D., *Secretary.*

7th January, 1853.—*Stated Meeting.*

Present: The Right Honourable Maziere Brady, *Vice-Chancellor.*
His Grace Richard Archbishop of Dublin
The Right Honourable Lord Chief Baron Pigot.
Sir Philip Crampton, Bart.
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork
The President of the Queen's College, Galway.
Richard Griffith, LL.D.
Major Thomas A. Larcom, R.E.

Robert Ball, LL.D., *Secretary.*

20th January, 1853.

Present: The Right Honourable Lord Chancellor Brady, *Vice-Chancellor.*
The Right Honourable Lord Chief Baron Pigot.
Sir Philip Crampton, Bart.
The President of the Queen's College, Cork.
Richard Griffith, LL.D.
Major Thomas A. Larcom, R.E.
James Gibson, A.M., Barrister-at-Law.

Robert Ball, LL.D., *Secretary.*

26th February, 1853.

Present: The Right Honourable Lord Chancellor Brady, *Vice-Chancellor.*
His Grace Richard Archbishop of Dublin.
Sir Philip Crampton, Bart.
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
The President of the Queen's College, Galway.
Dominic J. Corrigan, M.D.

Robert Ball, LL.D., *Secretary.*

5th April, 1853.

Present: The Right Honourable Lord Chancellor Brady, *Vice-Chancellor*.
The Right Honourable Lord Chief Baron Pigot.
Sir Philip Crampton, Bart.
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
The President of the Queen's College, Galway.
Richard Griffith, LL.D.
Dominic J. Corrigan, M.D.
Major Thomas A. Larcom, R.E.
Robert Andrews, LL.D., Q.C.

Robert Ball, LL.D., *Secretary*.

20th June, 1853.—*Stated Meeting*.

Present: The Right Honourable Lord Chancellor Brady, *Vice-Chancellor*.
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
The President of the Queen's College, Galway.
Richard Griffith, LL.D.
Dominic J. Corrigan, M.D.
Major Thomas A. Larcom, R.E., LL.D.

Robert Ball, LL.D., *Secretary*.

16th July, 1853.

Present: The Right Honourable Lord Chancellor Brady, *Vice-Chancellor*.
Sir Philip Crampton, Bart.
The President of the Queen's College, Belfast.
The President of the Queen's College, Cork.
The President of the Queen's College, Galway.
Dominic J. Corrigan, M.D.
Major Thomas A. Larcom, R.E., LL.D.
James Gibson, A.M., Barrister-at-Law.
Robert Andrews, LL.D., Q.C.

Robert Ball, LL.D., *Secretary*.

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FOR HER MAJESTY'S STATIONERY OFFICE.